

REVIEWED: APPLE'S NEW 21.5IN iMAC

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AUGUST 2014
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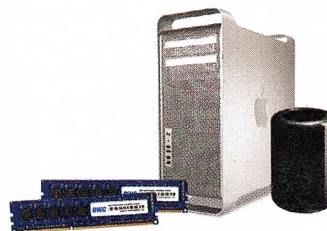
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It's every computer user's worst nightmare – data loss. It can happen in a number of ways. Your device could be stolen, it could be damaged or you could suffer a disk failure. So, how do you ensure your data is safe and secure? ANTHONY CARUANA shows you how.

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BY ANTHONY CARUANA

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In the 25 years since Tim Berners-Lee invented the web, the online world has evolved almost beyond recognition. Our team of experts share their tried-and-true tools and routines for staying on top of the modern web.



It was different in January 1998

It feels a little like the calm before the storm. WWDC has come and gone, and the excitement that it brought has dwindled like the late-night campfire. While the best is yet to arrive in the coming months, as we head into spring, I want to take the opportunity to look backwards.

Niche Digital, the publisher I work for and the home to a number of fantastic industry magazines, is producing a video that gazes back over its history, the changing landscape of publishing and the beautiful products my fellow colleagues, past and present, have created. This isn't a company plug, just a little background.

In January 1998, the *Australian Macworld* brand, which became *Macworld Australia*, incorporated the *Australian MacUser* magazine. And it is this original issue that was found as a part of the video creation.

I don't want to give away my age, but I was in grade three when this was on the shelves at the local newsagent. And, as such, you can probably understand my interest in what was making news, which products were being reviewed and what issues Mac users were facing at the time.

So, if you will indulge me, I will take a trip to the beginning of 1998...

The cover was adorned with a black PowerBook G3, priced at a sizeable \$10,395, the second page advertised *Diablo* (head to Page 61 for a review of the latest edition) and the letters to the editor grumbled about the struggles to bank online with their Macs – hard to fathom now.

In the reviews section, *Starfleet Academy* received five mice, *Where in Time is Carmen Sandiego?* was given a four-and-a-half rating and so was the Australia and New Zealand Interactive Wine Companion.

Another little titbit was the commentary on a new mini-ATX motherboard, which made upgrading your Mac easier. Ha!

And a young-looking Christopher Breen was offering tricks, tips and Mac advice (for his current day advice, head to Page 52).

If anyone has some fond, or not-so fond memories, of using Macs in 1998, please send them through to editor@macworld.com.au. I would love to hear them.



STAFF PICKS

What iOS game are playing now?



JONATHAN STEWART

TWODOTS

I am becoming a little addicted to

TwoDots. The premise is simple, connect dots of the same colour to achieve numbered goals. It's a great way to pass any spare time.



MADELEINE SWAIN

TRIVIA TO GO

Yes, it repeats the questions and becomes an exercise in quick tapping more than knowledge, but it whiles away the hours.



TYNAN MCCARTHY

HEADS UP!

Think *'Charades* meets *Celebrity*

Heads! for your iPhone. This game is a lot of fun to play with your mates. The best (or possibly most humiliating) feature is video playback.



MONIQUE BLAIR

BEJEWELED

My favourite iOS game is

Bejeweled. It's a great one for those boring commutes and it's really fun trying to beat your friends' high scores.

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CONSUMER TECH DIVISION (Macworld Australia & MacTalk):

Editor Jonathan Stewart jonathan.stewart@niche.com.au @Stewart_JL

Subeditor Madeleine Swain madeleine.swain@niche.com.au @MadeleineSwain

Business Development Manager Tynan McCarthy tytan.mccarthy@niche.com.au +61 3 9948 4941

MACWORLD AU PRODUCTION: Art Director Keely Atkins Production Manager Julia Garvey julia.garvey@niche.com.au Design and Digital Prepress Monique Blair

NICHE MEDIA:

Chairman Nicholas Dower Managing Director Paul Lidgerwood Commercial Director Joanne Davies Financial Controller Sonia Jurista

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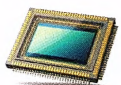
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HAVE YOUR SAY

LETTER TO THE EDITOR

SPOT ON

Colin McGuire's letter in the July issue of *Macworld Australia* is spot on – I have been using Macs in a small business for 15 years, but we have not upgraded from 10.7 because of lost productive features.

The latest Pages upgrade is shocking – almost everything we do would be blocked. I started with the original iPhone, but now have a Samsung Note because it does not get screwed up by iTunes.

If Apple wants to win back business customers, [it needs to] get stuck into Mail. Why is the active window always at the back? Threading messages is good, but why is it so hard to archive these conversations outside Mail in the business file folders where the other relevant documents are held?

Cutting and pasting into a document or Evernote is OK, but I would like to be able to pass an entire customer folder onto someone else just as you can with a physical folder. Frankly, if our next hardware upgrade means lost software functionality, then we will be looking at other operating systems.

Tom

THE SHAMBLES THAT IS PAGES 5.2

I have owned Apple computers since about 1982 (Apple IIc) and at present own both a MacBook Pro and an iMac that is less than a year old (as well as two iPhones, two iPods and three iPads). Since I have retired, I have written many books on family history all using Pages Layout.

All was going well until I upgraded to the new version of Pages. I was halfway through my last book. All hell broke loose when I opened the file with the 'new and improved version'. Much to my disgust and disappointment, the Layout capabilities within Pages had undergone major revision – Layout was gutted of some of its major creativity functions. Gone are the linked text boxes; gone too the possibility of rearranging the individual page thumbnails. The ability to copy and paste one thumbnail of a formatted page and create two formatted pages can be added to the list.

Previously I could divide a large text box into two with one part at the end of one page, then the second on the top of the next page. In having these linked, I could easily adjust size – the text would spill or shrink from one text box to the other. That too disappeared! No longer could I use one page loaded with images, that I moved (using the thumbnail), copying and pasting/inserting the relevant images in the text. (Repositioning an image down the through pages would sometimes cause the Pages app to freeze. Later in the book, Pages refused to allow me to type text in the lower part of pages. I had reached the limits of Pages).

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UP IN THE CLOUDS

In reference to the online article, 'Google reacts to Office 365 momentum with unlimited cloud storage' (bit.ly/1o219RN). If Google wants to compete with Office, it needs to offer basic features such as an outline view, which is very important for business users who edit large documents. The 'Table of Contents' generation feature clearly demonstrates it has the technology to achieve this.

Andrew

VINTAGE MEMORABILIA

In cleaning up, I have found a 1988 Apple calendar with Apple themed artwork from students in Australian tech colleges. It has not been written on and is in good condition. How would I find out what it is worth?

Judy

Ed's note: If anyone can help Judy, let us know at editor@macworld.com.au.

NEW IMAC'S DESIGN

In regards to the review of the new 21.5in iMac (bit.ly/1z46gbB; Page 58), James, you are hanging onto a dream. I'm looking at a 2006 iMac that I still use as a supplementary machine and

that doesn't have side ports while being quite thick. I guess \$250 isn't a lot more for the better model, but you are correct in saying a lot of people only want a basic computer and, let's face it, it will be a lot easier for them to use.

Dean

SLIM OPTIONS

I think the iMac review is spot on, including the comment about thinness overruling practicality. Dean is right though; I have an old PowerPC iMac that has sides 48mm deep. Even then, design aesthetics were more important to Apple than user convenience – the miserable selection of ports were all relegated to the back panel where they are hard to reach, and even harder to distinguish from one another.

The trend towards making iMacs less and less upgradeable is really regrettable. Sure, they are relatively cheap, but not being able easily to slip in an extra memory module or a bigger hard disk is making people, like me, think about going back to Windows for my next home computer.

Much of the 'it just works' advantage of Macs has disappeared as the talent at Apple has been diverted to the iOS products, and many of the core aspects of OS X have not been substantially improved for years (e.g. the Finder).

Keith



PHOTOS FOR OS X

In reference to the news that Apple is ending iPhoto and Aperture for OS X, 'Don't weep for Aperture: Photos is a bright new beginning' (bit.ly/1zizzal), I'm sorry but this is insane.

I am not going to allow my collection of personal photos to be uploaded to the 'cloud'.

I do back up my photos, and send copies to my family who live hundreds of kilometres away, in areas where the best internet connection is expensive 3G, via DVD and snail mail.

Apple needs to understand that most of the planet's population do not live where fat data pipes are cheap, and we do not want Apple to 'take care' of our most treasured data. Apart from anything else, I can't see the massive storage required being free for long, if adequate storage is ever free. Excuse my cynicism but this is just another go at squeezing more ongoing cash from us.

Damn, looks like I'm going to have to find an alternative to iPhoto.

Graeme

Letters should be emailed to editor@macworld.com.au with a subject header of 'Letter to the Editor' or by post to: Macworld Australia Mailbox, 142 Dorcas Street, South Melbourne, Victoria, 3205. Please include your full name and address, including state or territory.

Comments on stories or Forum posts on www.macworld.com.au are also eligible for the prize.

We reserve the right to edit letters and probably will.

Letters of fewer than 200 words are given preference.



This month's prize to the *Macworld Australia* reader who submits what we think is the most interesting letter is a pair of Plantronics BackBeat FIT wireless stereo headphones, worth \$149, from Anyware.

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HOT STUFF

A selection of Apple, Mac and iOS news from Macworld.com.au



APPLE DROPS IPOD TOUCH PRICES, IMPROVES 16GB MODEL

The low-priced hits just keep on coming. Apple unveiled a new version of its 16GB iPod touch, available for \$249, as well as dropping prices on the 32GB and 64GB models by \$30 and \$80, respectively.

If you've forgotten The Strange Case of the 16GB iPod touch, don't feel too bad: The former model debuted in May 2013 with a few... peculiarities. For one thing, it featured no rear-facing camera, just the front-mounted FaceTime HD camera. It also eschewed the iPod touch loop connector that its siblings sported, and came in just a single colour: silver.

Now that strange one-off has been consigned to the dustbin of history, joining the likes of the rare aluminium unibody MacBook with no FireWire. In its place is a fully featured 16GB iPod touch that comes in all the colours of the rainbow – well, the pink, yellow, blue, silver, space grey and (Product) Red that the 32GB and 64GB models come in – and has the same five-megapixel iSight camera and loop connector. (The wrist strap itself, however, is not included as it is with the more expensive models.)

In other words, it's more or less the 16GB iPod touch that we should have had all along.

Meanwhile, the 32GB and 64GB models have dropped to \$299 and \$349, making them more affordable than ever. Coming on the heels of Apple's new entry-level iMac and repriced MacBook Air, the theme of a lower cost of entry to the company's product lines seems to be continuing across the board.

APPLE INTRODUCES NEW, ENTRY-LEVEL iMAC

The iMac range is a little more affordable from June as Apple unveiled a new, lower-price entry model.

The new 21.5in iMac starts at \$1349, and contains a 1.4GHz dual-core Core i5 processor, with Turbo Boost up to 2.7GHz, comes standard with 8GB of RAM, an integrated Intel HD Graphics 5000 chip and a 500GB hard drive.

The new iMac also features two Thunderbolt ports, four USB 3.0 ports and 802.11ac wireless networking. The desktop has a couple of build-to-order options available: a 1TB hard drive for \$60, a 1TB Fusion Drive for \$300, and the addition of 256GB of flash storage is also \$300.

The other 21.5in iMac configurations are priced at \$1599 (2.7GHz) and \$1849 (2.9GHz), while the 27in models begin at \$2199 for the 3.2GHz option and \$2449 for the 3.4GHz model. Read our review of the new iMac on Page 58.

NEW iMAC IS A DIY NIGHTMARE

Apple's new iMac may be less expensive than its siblings, but that came at a price, says a reseller: Do-it-yourselfers won't be able to upgrade the stock 8GB of memory in the new all-in-one.

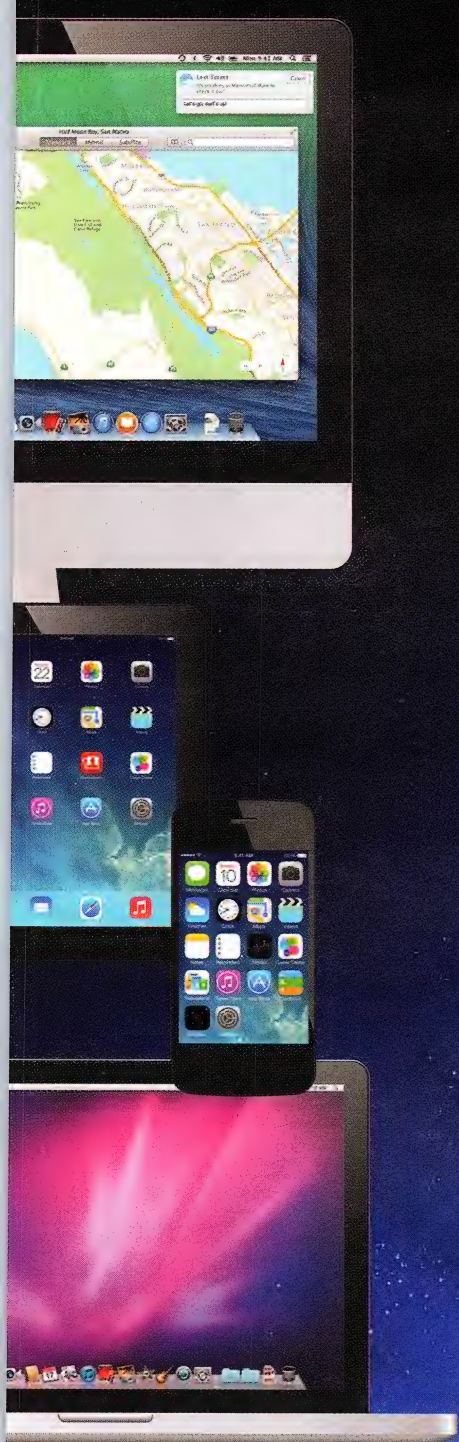
US-based Other World Computing got its hands on a \$1349 21.5in iMac and has taken it apart. "We found this iMac has the memory soldered to the motherboard, removing any possibility of adding additional memory," the company says.

The other two still available stock 21.5in iMac configurations do not make RAM replacement easy as the system must be pulled apart to get to the memory. But RAM can be upgraded by a dedicated do-it-yourselfer.

The larger iMacs, which boast 27in displays, have a small door at the back that exposes memory so users can replace RAM without cracking open the case.

The move toward solder wasn't a surprise: Apple also fixes memory to the logic boards of its MacBook Air and MacBook Pro notebooks, another similarity between those mobile systems and the new 21.5in iMac. One way that Apple lowered its costs for the \$1349 machine, for example, was to use the same slower 1.4GHz dual-core Intel Core i5 processor found in the MacBook Air line.

In any case, the customers Apple has targeted with the lower-priced iMac – consumers eyeing a Mac as a household computer but looking for the best value – are less likely to be the kind who dabble in DIY.



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iFixit, a better-known source for computer teardowns than Other World Computing, has not published a dive into the new iMac, but if or when it does, it's likely to give the all-in-one a very low repair score.

Last year, when iFixit took apart the then new 21.5in iMac, the organisation gave the system a score of only two out of a possible 10. With the new iMac's soldered RAM, it's probable that iFixit will lower the score further.

If iFixit gave the new iMac a repair score of just one, the desktop would rank alongside the mid-2012 MacBook Pro, which the website called "the least-repairable laptop we've taken apart".

Apple does not offer a factory-installed memory upgrade for the least expensive iMac, fixing the RAM at 8GB.

WHICH DEVICES WILL RUN OS X YOSEMITE, iOS 8?

Despite Apple CEO Tim Cook's determination to have all Apple owners run the latest and greatest software on their devices, iOS 8 and OS X Yosemite will not run on all devices in circulation. So, what will be compatible? Who will need to upgrade their devices in order to use the new features?

OS X YOSEMITE

It has been reported that nearly 80 percent of Macs will be able to run OS X 10.10. A simple way to look at it is, if your Mac runs OS X Mountain Lion or OS X Mavericks, you should be fine.

According to the Yosemite system requirements, the list of Macs include:

- iMacs from the mid-2007 model on
- 13in MacBooks from late 2008 (aluminium case) and early 2009 (plastic case) forward
- MacBook Pro notebooks from mid-2009 and later (13in) and late-2007 and after (15in, discontinued 17in) and on
- MacBook Air ultra-light laptops from late 2008 and later
- Mac mini desktops from early 2009 and after, and
- Mac Pro desktops from early 2008 and forward.

You can check where your Mac sits by heading to the Apple logo in the top left-hand corner of your display. Click the logo, select 'About This Mac' and choose 'More Info...'

Exceptions. OS X Yosemite will require Bluetooth 4.0/LE to utilise the Handoff feature in Continuity. This limits the compatible devices for those seeking to pause work on one device and continue on another.

The list of Macs with Bluetooth 4.0/LE is as follows:

- iMacs from late-2012 onwards
- MacBook Pro laptops from mid-2012 onwards
- Retina MacBook Pro laptops from mid-2012 onwards
- MacBook Air laptops from mid-2011 onwards
- Mac mini desktops from mid-2011 onwards, and
- Mac Pro desktops from 2013.

iOS DEVICES

iOS devices able to run iOS 8 is an easier breakdown. If you have an iPhone 4s onwards you will be able to receive the update (iPhone 4s, 5, 5c, 5s devices are in) – iPhone 4 users will be stuck with iOS 7 if they don't choose to purchase a new device.

For iPad owners, devices from the iPad 2 onwards will run iOS 8. Owners of the original iPad will not be able to run iOS 8, but iPad 2, iPad with Retina, iPad Air and both iPad mini models will be able to run the operating system come spring.

However, the fifth-generation iPod touch is the only iPod that will run iOS 8.

Exceptions. Like OS X Yosemite, iOS 8 will require Bluetooth 4.0/LE to utilise the Handoff feature in Continuity. This means the iPad 2 will not be able to run this feature.



APPLE ANNOUNCES LINE-UP FOR EIGHTH UK iTUNES FESTIVAL

Apple has announced the line-up for the eighth UK iTunes Festival in London, with a number of the world's top artists performing across September at the Roundhouse.

The 60 artists who will perform over the 30 days will include Maroon 5, Pharrell Williams, Beck, Sam Smith, Blondie, Kylie, David Guetta, 5 Seconds of Summer, Calvin Harris and Chrissie Hynde.

"The iTunes Festival in London is back with another stunning line-up of world class performers and tremendous new acts," says Eddy Cue, Apple's senior vice president of internet software and services.

"These live shows capture the heart and soul of iTunes and we love bringing them to our customers in the Roundhouse, as well as to the millions of people watching all over the world for free."

Tickets to the event are free, but can only be acquired via contests run by Apple's partners or by entering the ballots on iTunes. If you cannot make it to London, or miss out on a ticket, you can watch the performances live or on-demand on your iOS device, Mac or Apple TV.

You can find out more on the iTunes Festival website (www.itunesfestival.com).

APPLE AGREES TO PAY UP TO US\$400 MILLION IN EBOOKS PRICE-FIXING CASE

Apple has reached a settlement in a long-standing case that accused the company of fixing the price on ebooks, with the company paying up to US\$400 million, depending on the outcome of its appeal in the case, a law firm has announced in July.

Apple would pay the US\$400 million in the class-action lawsuit if its appeal of a 2013 court ruling that found the company guilty of antitrust violations is dismissed, said class-action law firm Hagens Berman Sobol Shapiro, which is representing ebook customers in 19 US states and four US territories.

If the US Court of Appeals for the Second Circuit reverses and remands the case back to district court, the settlement agreement calls for Apple to pay consumers US\$50 million to settle their claims, the law firm says. The US Department of Justice and several state attorneys general would be free to continue pressing their claims if that happens, the law firm says.

If the court of appeals reverses the 2013 decision by the US District Court for the Southern District of New York, Apple would pay no damages, according to the firm.

The law firm believes the appeals court will uphold the lower court's decision,

Steve Berman, managing partner of Hagens Berman, said in a statement.

Apple representatives didn't respond to a request for comment on the settlement.

The DOJ, in April 2012, filed an antitrust complaint accusing Apple and five book publishers of fixing the prices of ebooks.

Before this settlement, Hagens Berman and the state attorneys general have agreed to US\$166 million in settlements on behalf of consumers from the five publishing companies.

FINANCIAL EXEC SUE WAGNER ADDED TO APPLE BOARD OF DIRECTORS

It's been a while since Apple made any changes to its board of directors, but the company has welcomed its newest member, Susan L Wagner. Wagner, a founding partner and director of asset-management company BlackRock, previously served as that company's vice chairman until mid-2012. She replaces Intuit chairman Bill Campbell, who has served on the company's board of directors since Steve Jobs' return in 1997.

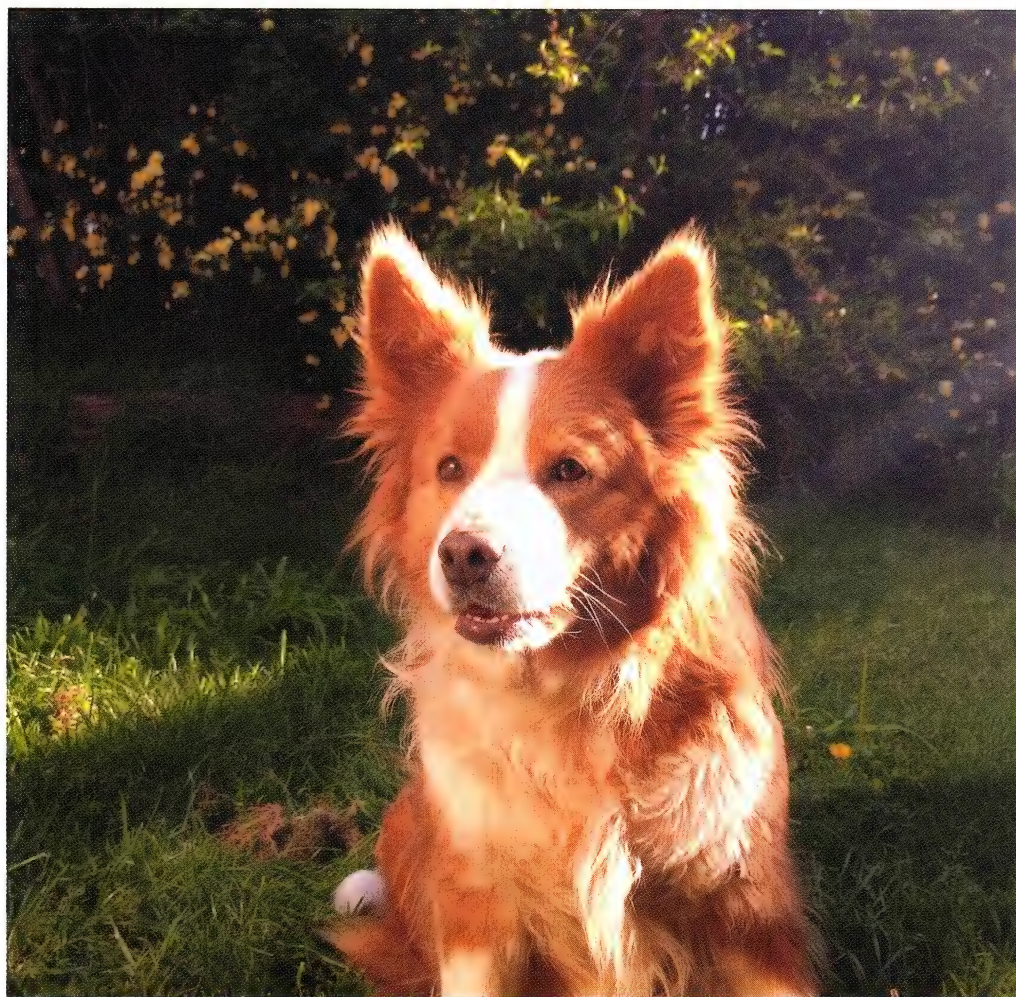
"Sue is a pioneer in the financial industry and we are excited to welcome her to Apple's board of directors," Apple CEO Tim Cook said in the company's statement.



Left: Sue Wagner. **Right:** Bill Campbell.

In the sunshine

Playing in the backyard, Cliff Elliott has taken this radiant snap.



The iSnap winner for this month comes from Cliff Elliott with a beautiful portrait of Border Collie, Asha.

Captured two years ago in Somerville on the Mornington Peninsula, the photo shows nine-year-old Asha basking in the Victorian sunshine and awaiting the opportunity to pounce on a stick, Cliff says.

"I was playing with Asha. She plays this game with me where she tries to steal a stick off me and on this occasion she had decided to have a break in our game and was just sitting smelling the air."

What was it that made Cliff pause the

game and choose to take a picture?

"It was a combination of her colour and pose and the sun streaming in from the side; it just looked glorious. And I had my iPhone with me as I always do and just felt I had to capture the scene as it would disappear very quickly."

And we are glad that he did.

Cliff carries his iPhone with him everywhere, so he can pull it out to take pictures of anything that catches his eye.

"The advantage of iPhone photography is having a good quality camera in your pocket all the time. As for disadvantage,

there is none, as the iPhone camera, especially the 5s that I now have, captures exceptional pictures," says Cliff.

Which are his preferred apps for his iOS devices?

"I love iPhoto on the iPhone and iPad," he says. "I also love a little app called OSnap. I use it in conjunction with a great little device, the Veho MUVI X-Lapse."

"You mount your iPhone on the X-Lapse, then set OSnap to record a series of timed frames as the X-Lapse slowly rotates, allowing you to record, in time-lapse, a circular view of the world. Great combination."

In iSnap we're on the lookout for some of the best photographs being taken with iOS devices. Submit your favourites to macworld@macworld.com.au for your chance to be featured in the online iSnap gallery (www.macworld.com.au/isnap). Each month's winner will win a prize and appear on this page!

This month's prize is a Monopod (\$34.99) and a Shutter Remote (\$54.99) from iStabilizer.

The iStabilizer Monopod is an extendable, handheld mount for smartphones and POV cameras including GoPro, Countour, Drift and light camcorders.

The Shutter Remote offers control over your device via Bluetooth. The remote allows users to capture photos; change music tracks and volume; play and pause movies on an iOS device or Mac; activate Siri and initiate navigation.

www.istabilizer.com





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Northland

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Shop K025A 2-50 Murray
Road, Preston
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Shop GF25 SupaCenta
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Avenue, NSW
Moore Park, 2021

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MAC BACKUP AND DATA RECOVERY

It's every computer user's worst nightmare – data loss. It can happen in a number of ways. Your Mac, iPhone or iPad could be stolen. Or they could be damaged or you could suffer a disk failure. After all, there are only two types of hard drives: those that have failed and those that will fail.

So, how do you ensure your data is safe and secure?

ANTHONY CARUANA shows you how.

We're going to suggest that the loss of a piece of hardware, while expensive, will be the least of your worries. It's the data stored on your device that is truly valuable. Computers, tablets and smartphones can easily be replaced, but photos of your family, the presentation you spent all night preparing for the big meeting and the music collection you spent months ripping from your CD collection will cause you much more pain than a trip to your local reseller or Apple store and parting with some money.

The sad truth is that many people don't learn the value of a robust data protection strategy until they've lost some data. At least, that's how we learned the lesson!

Like all business processes – and backup and recovery are business problems, not strictly technical ones – this relies on three key elements. These are people, process and systems. Having the best backup hardware solution will count for nought if people bypass the process or if the backup process is too cumbersome.

While backing up your data is important, don't forget the other side of that coin. Recovery of your data is just as critical.

CREATE AN EFFECTIVE BACKUP AND RECOVERY STRATEGY

So, how do you go about putting together an effective backup and recovery plan? Our advice is to not start with the hardware and software that's on the market. The place to begin this is with a plan of what you will back up. The data stored on your Mac or iOS device can be categorised into four main types.

- the operating system
- the applications
- the settings and configuration, and
- the data.

Each of these can be, potentially, handled in a different way in the event of a loss or data corruption.

It's also important to think about what you're trying to protect yourself against, as different scenarios will need to be handled in different ways. If you're a sole trader or looking to protect your data at home, then this information can probably exist in your head. For a larger network, it's a good idea to write all this down so that everyone involved in the plan knows what they're responsible for.

Some of the scenarios you may want to consider are:

- loss or theft of an entire device
- component failure
- accidental deletion or overwriting of data, and
- corruption by malware or some other incident.

Having identified what needs to be backed up and the scenarios under which your data may become inaccessible, you also need to plan for the recovery. The big question with recovery is: 'How long can I live without my data?'

For example, if you suffer the complete loss of a system through theft, then you'll need to procure a new device. That's likely to only take a few hours, as you get to a local store and buy a new computer. Even though you'll be out of pocket, it's possible that you could recover some or all of the cost through insurance.

Getting the operating system back is covered, as your new Mac, iPhone or iPad will have the latest version of the right operating system installed. The only problem will be if you were still running an older OS. That will mean a forced upgrade.

Recovering your apps will depend on the nature of your backup strategy. You can reinstall everything from scratch, assuming you have access to all the original disks or downloads.

Then you'll need all of your personal customisations, such as templates, wallpapers and specific settings you've applied to the applications you use. Those can be a little trickier to restore depending on how you've backed them up.

Finally, there's your precious data. Of everything on your Mac, iPhone or iPad, this is probably the most valuable

thing you're trying to protect. How long can you last without your address book or calendar? What about photos or work files? The amount of time you can live without this data will vary.

Once you go through this exercise, you can start to create a backup and recovery plan that matches your needs. How do you go about creating your plan?

THE BACKUP AND RECOVERY COUNTDOWN

The generally accepted best practice for backups is the 3-2-1-0 approach. Here's how it works.

Three – for the number of copies of your critical data you need to retain.

Two – for the number of different storage media you should use.

One – for the minimum number of copies you should keep off-site, away from your main work area.

Zero – for the number of errors your backups should contain.

Here's how you can put that into practice.

THREE COPIES

Three copies of your critical data is reasonably easy to achieve. For a start, there's the master copy of your data on your Mac or mobile device. With your Mac, Time Machine is a very easy way to ensure you have a second copy of all your data. As it's automated, once you have an external drive connected to your Mac, your entire system can be backed up without any intervention on your part.

One of the neat things about Time Machine is that it's now supported on many NAS (network attached storage) devices. This means you can back up your portable Mac without having to tether to an external drive. If you're planning to purchase a NAS, make sure it supports Time Machine backups before laying out your hard earned cash. Most of the NAS

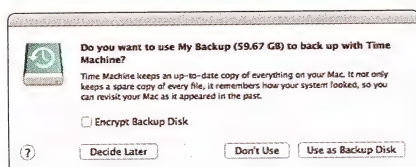
units we've seen recently do support Time Machine.

If you're running an OS X server on your network, you can configure the server to be a networked Time Machine backup location. However, your data is being backed up locally even when you're not connected, so you can recover deleted or overwritten files even when you're away from your normal backup location. The amount of data that's locally kept will depend on your available disk space.

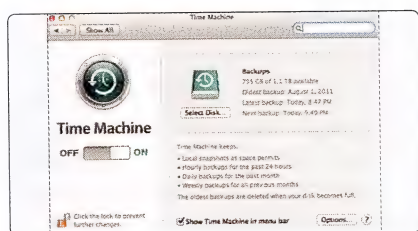
So, that's two copies – your master copy and Time Machine. For copy number three, consider a cloud service like Carbonite or CrashPlan. Although they're not free, they will provide you with an off-site copy of your data. Many of these services even make your data available from other devices. So, if your Mac is lost, stolen or destroyed, you'll be able to access your files from your iPhone or iPad.

Where cloud backup services differ from file sync services like Google Drive and Dropbox is that they are system-wide. Most file-sync services are limited to the data that's stored in a specific folder and its sub-folders.

Backup services will store data from your entire system. So, you can tell them to protect files from your documents, iTunes and iPhoto libraries, videos and other locations.



Plug and play. Normally, as long as your new external hard drive is formatted correctly, all you have to do is plug it in to get started backing up with Time Machine.



Options. The Time Machine window gives you access to most of the program's options.



Space. To save space on your backup drive, exclude items you don't need to back up.

If you're still using an older version of OS X, then we'd suggest using a disk cloning tool as well as Time Machine. Carbon Copy Cloner and Super Duper are our favourites.

These tools will copy the entire contents of your hard drive to external storage. That's every file and setting completely duplicated.

Cloning your system offers a couple of great benefits. If you apply the right settings when cloning your drive, the external storage you've chosen will be bootable. That means you can connect the drive to another Mac and boot your system. This can be a quick way to get back to normal operations if your Mac is no longer operating or available.

TWO MEDIA AND ONE OFF-SITE LOCATION

If you've followed our advice so far, you'll notice that by using a cloud service we've achieved our 'two different media' rule in the countdown and even have an off-site copy for data.

If you're not keen on putting important business data in the cloud, you can employ a different approach.

Portable hard drives are widely available and inexpensive. If you're using Time Machine, you can use two different drives for your backups. At the end of each workday, simply take one drive off-site. The next morning, bring the second drive and use that for the day.

You can apply the same approach with cloned drives. Close your system to a different drive each night and take the 'spare' to an alternative location.

Another approach is to strike up an accord with a friend. If you both have enough storage capacity and bandwidth, you can back up your files to each other. This can work well with some NAS devices, as they support file synchronisation over the internet.

ZERO ERRORS

All the backups in the world aren't worth a thing if they're broken. One of the often missed steps in backup processes is testing the recovery process.

If you've followed the advice so far, you should have three copies of your main data – the master and two copies or backups. They should be stored on two different media, such as an external or networked drive and a cloud service with one of those copies away from your main workplace.

Each of those copies needs to be tested regularly. An easy way to do this is to simply try to restore a random file each week. Put the task in Calendar or Reminders and don't skip it. Plenty of people have thought they had robust backup and restoration processes in place only to find that a critical file was missed or that something was awry.

If you're cloning your system regularly, make sure that the copy is actually bootable on another Mac.

TIMING IS EVERYTHING

Like good comedy, the secret to a robust recovery plan is timing.

If you lost your computer, how long would it take for you to get up and running again? If a critical file was deleted or overwritten, could you recover quickly enough to avoid disappointing a customer?

If you're using Time Machine, recovering a few files takes just a few minutes. Launch the Time Machine application, browse through the folders on your screen until you find the file you need and restore it. Our advice when doing this is to recover the file to a new location and not overwrite your existing file, even if that file is damaged.

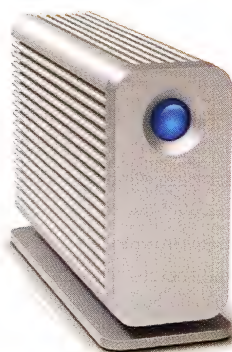
If you suffer a massive catastrophe and lose access to your office and all your equipment, you'll need to ensure your off-site copies are safe as well. During the Christchurch earthquake in early 2011, many businesses were crippled. Even though they could get access to new computers, their backups were inaccessible because they were kept on-site.

Although the cloud may seem like a risky proposition, it's worth doing a thorough analysis before ruling it out as a backup solution.

BACKUP OPTIONS

Now that you've got the building blocks of your backup and recovery strategy in place, it's time to look at some of the specific solutions that are out there to help you along.

EXTERNAL HARD DRIVES



Lacie Little Big Disk
\$649

Lacie has been a favourite of Mac users for many years. Its emphasis on solid materials and elegant styling makes it an attractive companion for your Mac.

The Little Big Disk comes with a 4TB capacity. It connects to your Mac over Thunderbolt and there's no need for an external power supply as it gets its juice from your Mac. This makes it ideal for backups while you're travelling.



Western Digital My Book Studio
\$219 (2TB); \$279 (3TB)

The My Book Studio is an elegant drive that resembles a hardcover book with an aluminium cover. It connects to your Mac via USB 3.0 and, as it's a desktop drive, requires mains power as well.

It comes in capacities of 2TB and 3TB. If you want to save a few dollars, the My Book for Mac desktop drive, which is functionally similar, but uses a plastic case rather than aluminium, is about \$70 cheaper.



Seagate Expansion Desktop
\$98 (2TB)

Seagate has been one of the leaders in storage for many years. The Expansion Desktop is a quick and easy way to plug a backup drive into your Mac. It connects over USB 3.0 and requires an external power supply.

Capacities vary between 1TB and 5TB. Despite the relatively low price, Seagate offers a three-year warranty on the Expansion Desktop, indicating it's made to a solid standard unlike some other, lower cost devices we've seen.

NETWORK BACKUPS



Seagate Central
\$249 (3TB)

The Seagate Central is a wireless storage device that hooks up to your network, making it a convenient backup device. It supports Time Machine out of the box, making it handy for MacBook Pro users looking for the convenience of Time Machine without the hassle of connecting an external drive.

Capacities range from 2TB to 4TB and there's an iOS app, so you can access the data stored on the Central remotely.



Apple AirPort Time Capsule
\$349 (2TB); \$449 (3TB)

The Time Capsule has been significantly revised since its initial release in early 2008. It integrates a wireless router with three gigabit Ethernet ports so that it acts as the core of your network as well as a backup device.

It comes in 2TB and 3TB capacities and can be used to back up multiple Macs. Although it's priced at the higher end of the market, by integrating the storage with the router, it does reduce the number of devices you need on your network.



QNAP HS-210 Silent NAS
\$370 plus drives

QNAP has been making great improvements to its storage products over recent years. The HS-210 is a NAS device that supports Time Machine and can be even used to stream your media via AirPlay – something we haven't seen other NAS makers achieve.

The HS-210 is fan-less, so it can run far more quietly than other NAS devices. This is handy if you need to keep it on your desk. As it ships without drives, you'll need to add those to the total cost. Figure on adding about \$250 for a pair of 2TB WD Red Drives – which are optimised for NAS use.

CLOUD SERVICES

Carbonite**From \$60 per year**

If you're serious about your backups, then having a backup stored off-site is critical. Carbonite gives you a cloud-based option, so your backup can automatically be shipped to a location that's far from your office, but still easily accessible.

All data that is sent to Carbonite's servers is encrypted. Pricing plans are based on the number of computers you back up. For example, the entry-level plan for individuals allows you to back up an unlimited amount of data. Carbonite backs up all of your files – operating system and application files need to be managed with a different tool.

Carbonite's plans also offer local backup solutions that complement its cloud-based services.

CrashPlan**From \$70 per year**

CrashPlan's offer of unlimited storage for backups looks pretty good, particularly as it's complemented with a local backup solution, so that you have three copies of your data. Its pricing plans also include a family option that can cover up to 10 systems for \$165. This includes Windows and Linux systems as well as Macs.

All backups are encrypted, both as they travel to CrashPlan's servers and when stored. If the initial backup will take too long over the internet, there is also the ability to send a hard drive for the first backup for a one-time charge of \$165. Backups can



also be shipped to you the same way. This offers some flexibility if your bandwidth is constrained and you need to either back up or restore a large amount of data.

Backblaze**\$5 per month**

Backblaze is a great way to provide you with a 'belts and braces' backup solution. As well as backing up the data on your Mac's hard drive, it can be used, at no extra charge, to back up data from externally connected drives using USB, Thunderbolt and Firewire. All of this is managed through a small application you install to your Mac.

The restore process is straightforward and can be carried out from a Mac or iPhone. They will also ship your data to you using a flash drive or external hard drive for an extra fee. Your data is encrypted both when stored and while in transit.

BACKUP AND CLONING
SOFTWARE**Super Duper****Free; \$27.95 for extra features**

Super Duper creates a bootable copy of your entire drive. It sounds simple, but it can be an absolute lifesaver if you suffer a complete loss of your entire system. Super Duper not only copies all your data to an external drive or disk image, but also allows you to boot from it. That means if your Mac is lost, you can connect the drive to another Mac and resume working from your last backup.

If you choose to pay for extra features, you can schedule this to happen automatically. Among the extra features is also the capability for subsequent backups to be incremental rather than complete. That means only changes are copied to the backup rather than repeating the entire

process. This can save time, making it possible to back up more frequently.

Carbon Copy Cloner**Free for 30 days, then \$44.95**

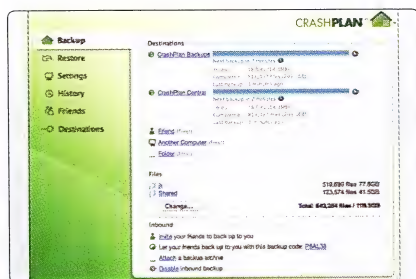
Carbon Copy Cloner has been one of the 'go to' backup and disk cloning apps for Mac users for many years. It can create a bootable duplicate of your entire Mac, either to an external drive or to another device on your network.

Backup tasks can be scheduled and even wake your Mac from sleep and shut it down again once the job is done. As well as being a great backup tool, Carbon Copy Cloner is useful for migrating to a new Mac or when you upgrade to a new hard drive. And, for peace of mind, your backups can be encrypted so that they're kept away from prying eyes.

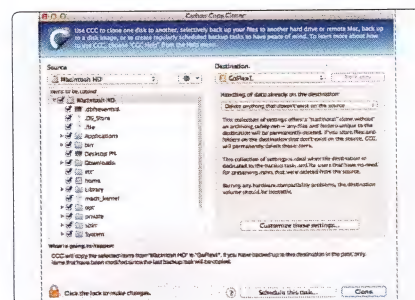
Acronis True Image for Mac**\$69.99 (one user); \$99.99 (three users).****Acronis Cloud storage options****\$59.99 per year; \$5.99 per month for 250GB.**

Acronis is well-known for its market-leading personal backup and recovery solution; Acronis True Image for Mac has just been added to the product portfolio.

Acronis True Image for Mac is a full system image backup solution that supports both backup locally and to Acronis' cloud service so you can recover files from anywhere. There's a free 500GB trial for one month. After the trial expires, you can purchase an annual or monthly subscription for 250GB, 500GB or 1TB.



Multiple options. With CrashPlan, you can configure multiple destinations for your backups. For example, you may set it up to put one copy on a local hard drive and another on CrashPlan's servers or a friend's Mac.



Quick recovery. Carbon Copy Cloner lets you copy your startup disk to an external drive, so that you can boot your Mac from the duplicate.



MAC GEMS

NEW SOFTWARE FROM THE MAC APP STORE



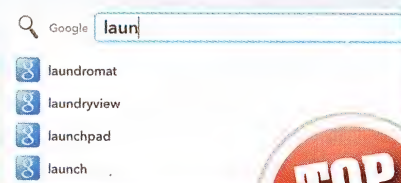
LAUNCHBAR 6

UTILITIES

Objective Development Software

US\$29.00 (SINGLE LICENCE); US\$48.00 (FAMILY LICENCE); US\$19.00 (SINGLE UPGRADE); US\$29 (FAMILY UPGRADE)

LaunchBar is the keyboard-based app that offers a faster way to open the applications and files you use most. For those unfamiliar, LaunchBar works like this: press a keyboard shortcut (Command+Spacebar by default, but you can choose your preferred key combination), and you're presented with the Bar. Then just start typing the name of the application you want to launch. Since LaunchBar is very clever at figuring out what you're looking for, it takes only a few letters before your app appears in the bar. Press Enter and you're off to the races. LaunchBar can also search via the internet, run custom extensions and actions that you define and will integrate with iCloud Reminders and Calendar.



TOP PICK

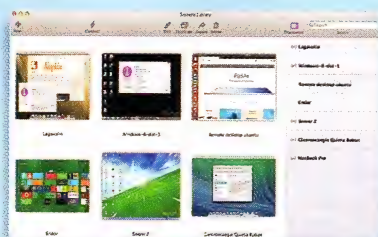


SCREENS VNC

UTILITIES

Edovia

\$43.99



Edovia's \$43.99 Screens VNC allows you remotely connect to your computers running OS X or Linux through the VNC protocol. The app comes with many power features, including

support for the SSH protocol and advanced pasteboard management, as well as the ability to synchronise your bookmarks using iCloud.



TUNESPAN

UTILITIES

Random Applications

\$18.99



Random Applications' TuneSpan allows you set up your iTunes library so that it spans multiple drives. The app allows you to more easily manage your videos and music – and, of course, limit your exposure in case

of hard drive failure. Be wary though, TuneSpan only works with OS X Mountain Lion or later.

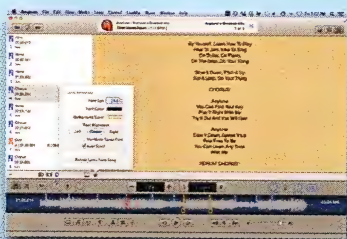


ANYTUNE

MUSIC

Anystone Technologies

\$37.99



Anystone Technologies Inc's \$37.99 Anytune slows down your music so that you can more easily practise along with it. A great tool for budding musicians, the app allows you to reduce the tempo of

a song without distorting its sound significantly, and can even apply one of several filters that highlight a specific part, like the guitar or voice.

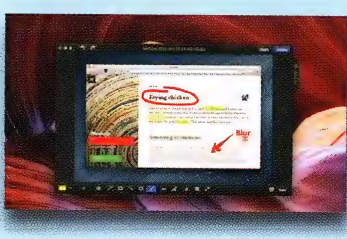


MONOSNAP

GRAPHICS & DESIGN

Farminers Limited

FREE



Monosnap is a complete screenshot solution for your Mac that allows you to capture still pictures and videos from your desktop, which can then be annotated and censored using a simple

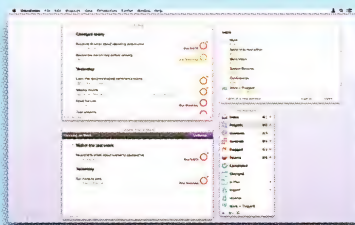
and intuitive user interface. The app, which is available for free, also supports sharing through a number of external services like CloudApp and Evernote, although that functionality will cost you an extra \$6.49.



OMNIFOCUS 2

PRODUCTIVITY

The Omni Group
\$49.99



The Omni Group's \$49.99 OmniFocus 2 helps you build and maintain lists of any complexity. The app allows you to create an arbitrary number of lists with tasks and subtasks, schedule each task

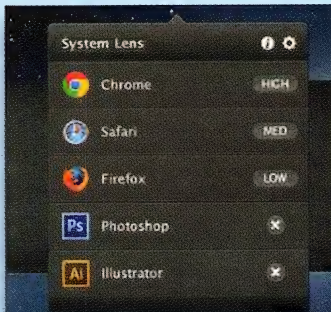
independently, track details on dates, notes and files, and even use a convenient forecasting feature to better handle your workload.



SYSTEM LENS

UTILITIES

Aaron Ng
FREE



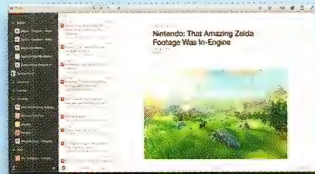
The free System Lens gives you a glimpse into your Mac's behind-the-scenes activity via the menu bar. The app allows you to view which of your system's tasks are taking up the most resources, and quickly terminate them at the click of a mouse if you feel so inclined.



REEDER 2

NEWS

Silvio Rizzi
\$12.99



Built around a multi-paned interface, Reeder 2 presents a logical hierarchy of RSS: For each account, you can specify settings such as the frequency of retrieval, how items are marked as

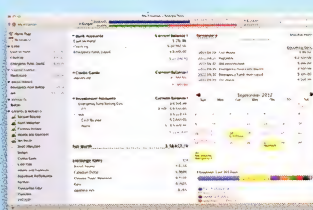
read, subscription sorting and more. For those who don't need advanced features, Reeder 2 lets you quickly read your RSS feeds. Gesture control and support for plenty of sharing services give the app polish.



MONEYDANCE

FINANCE

The Infinite Kind
\$64.99



Moneydance is a personal finance app that isn't perfect, mostly due to its UI anomalies, but overall the application offers good tools for managing your info. While it doesn't offer all of the automated download capabilities of apps such as iBank, its collection of reports and easy data entry features make it a tool worth looking at.

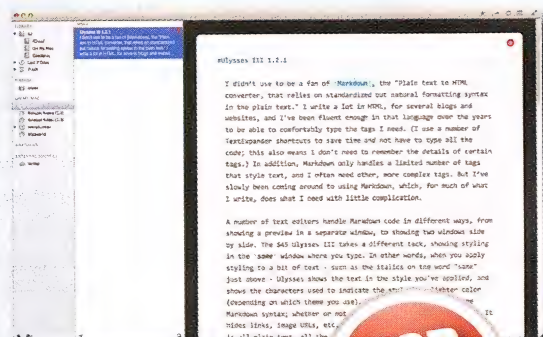


ULYSSES III

PRODUCTIVITY

The Soulmen
\$56.99

Ulysses III is a feature-rich tool that's very different from the many text editors we've reviewed. The Mac app shows styling right inline with your text in a sidebar in the same window rather than a preview in another window. It's an excellent tool for writing in Markdown, and its organisational features – the sidebar, folders and filters – make it a great app for those who write a lot and want to have quick access to everything they've written. Using Ulysses means buying into that workflow, however, so if you'd prefer a file-centric approach, Ulysses III is not for you. But if like Ulysses' location/folder/sheet approach, this may be the text editor you've long been looking for.



TOP PICK



HOW TO CHOOSE THE RIGHT BUSINESS MAC FOR YOU

BY ANTHONY CARUANA

Buying new computers for your business can be a tricky activity. Almost everyone in the business is an expert and there is no shortage of opinions on what the best computer for your business is.

But for business, the choices are more complex than a simple choice based on specifications. If you need a desktop should you go for a Mac mini, iMac or Mac Pro? And if it's a notebook then are you looking for a MacBook Pro or MacBook Air?

How do you finance your purchase? What about asset disposal?

Let's look at the options and work out what will be best for your business.

START WITH A BUDGET

Buying a new computer can be a daunting task. It's easy to get confused by specifications and technical details. Rather than start with specifications as the basis of your purchasing decision, we recommend starting with a budget.

When you start with a budget, you automatically restrict the number of options you have to choose from. This will help, as you won't have as many different models to evaluate and compare.

Business users have some more flexible financing arrangements available to them

as well. You'll need to choose between buying your computers or leasing.

To make that decision, you'll need to consider the entire life of the hardware from procurement to disposal.

Buying equipment is relatively easy – just follow your company's purchasing processes and wait for delivery. But disposal can be more complex as you'll need to manage depreciation schedules and deal with getting rid of the physical assets.

Leasing through a finance company means you pay a monthly fee that covers the capital cost plus some interest. This means that the business doesn't have to spend a lump sum of money. Most finance companies will then collect the equipment at the end of the lease period, thus solving the disposal problem for you.

KEY SPECIFICATIONS

When you run your eye down the list of tech specs for each product on Apple's website you'll see a huge array of different details. Although each of these is important, there are a few that are key.

Storage: Apple equips all of its portable computers with Solid State Drives, or SSDs. Capacities start at 128GB and go up to 1TB. Although it may be tempting to skimp on space in order to hit your budget this may be false economy.

With a portable Mac, you may end up having to carry an external drive in order to bring all your data with you. If you're on a really tight budget, aim for 256GB of space, but 512GB will give most users enough headroom to accommodate the accumulation of data over a couple of years.

Memory: Apple's entry-level computers come with 4GB of memory. Unless your needs are very basic, we'd suggest 8GB as a more realistic minimum. This will rule out most of Apple's less expensive computers.

Although OS X Mavericks and OS X Yosemite only require 2GB, you'll need more memory in order to run your applications.

Processor: Apple offers two main processor options – Intel's Core i5 and Core i7. For the majority of tasks, the Core i5 will be adequate. However, if you're planning to carry out more intensive tasks such as editing large images or processing video then a Core i7 may be a better choice.

DESKTOPS

In our view, the majority of users will feel right at home with an iMac. The first decision to make when choosing an iMac is screen size. Your choices are 21.5in and 27in. In our view, you'll never regret the extra size if your budget and desk space can accommodate it.

The vast majority of business users will find that an iMac meets their needs. It's a capable computer that can handle even heavy duty tasks such as video editing and image manipulation.



Small desktop. Apple's Mac mini is a good option if you already have displays available.

Office productivity applications, web browsing and email – the most heavily used business applications – will be handled easily.

For companies switching to Macs or who need a small system that can be hidden away, the Mac mini is a good option. It needs an external display and you can connect your own mouse and keyboard. It's very small and makes a great boardroom system as it can be easily hidden away.

The Mac Pro is Apple's high-end workhorse and offers the fastest processors and most memory in Apple's range. You'll be looking at a Mac Pro if you need a small office server or a more powerful machine for multimedia editing, software development or other processor and memory intensive tasks.

NOTEBOOKS

Apple has two device families in its notebook range; the MacBook Air and MacBook Pro.

The MacBook Air comes in 11in and 13in variants. We've worked with both extensively. If you have a desktop machine and need a computer for when you're out of the office, then the 11in MacBook Air will probably fit the bill.

With the 13in MacBook Air, the decision becomes whether to look at that device or the 13in MacBook Pro. Although the MacBook Pro costs a little more than the MacBook Air, it does offer a faster processor, more memory and a HDMI port for connecting to projectors and TVs without the need for an adaptor.

If you're looking for a desktop replacement, then the 15in MacBook Pro offers plenty of memory, up to 1TB of storage and fast processors.

The MacBook Air will suit users that travel a lot, as it's slimmer and lighter than the MacBook Pro. However, the MacBook Pro offers more power and the option of the high resolution Retina Display.

FIVE STEPS TO CHOOSING YOUR NEW BUSINESS COMPUTER

- Set a budget and work out the best financing arrangement.
- Think about the needs of different users – one size may not fit all.
- With notebooks – is portability or power the main focus?
- Work out what screen size will best suit your needs and budget.
- Ensure that you choose enough storage capacity and memory.



Portable. Apple's MacBook Air is the thinnest laptop in its range.

FOUR WEBSITES FOR WORK AT HOMERS



GOOGLE+ HANGOUTS

(plus.google.com/hangouts)

My colleagues and clients are scattered far and wide, but we can still have multiperson, face-to-face discussions – including screen sharing when necessary. My co-workers and I favour Google+ Hangouts for this, which we've found to be more reliable (if a bit more awkward to set up) than Skype.



QUICKBOOKS ONLINE

(www.intuit.com.au) Since I've been using QuickBooks Online, I've actually grown fond of

accounting. I can create and email invoices, enter bills and payments, print cheques and review my cash flow from a web browser. Even better, my wife, our bookkeeper, and our accountant can access the same info without having to buy separate licences.



TOGGL

(toggl.com) For most of my work, I bill by the project, not by the hour, but I still find it useful

to track the time I spend on major tasks (and the time I spend on work that doesn't directly produce income, such as email, web research and administrative tasks). Toggl is one of the easiest tools I've found for tracking my time: I type in a task name, click Start when I begin and click Stop when I'm done. Repeat as necessary.



TRELLO

(trello.com) For the work I do, traditional project management

apps like Merlin (projectwizards.net) are overkill. That's why my colleagues and I use a free, web-based project management tool called Trello. It employs the interface metaphor of tacking cards onto an infinitely scrollable bulletin board to track ideas and tasks. Boards can be private or shared; on shared boards, you can add team members to any card and have inline discussions.

– JOE KISELL



WHY WOULD YOUR BUSINESS NEED A DATABASE

BY ANTHONY CARUANA

While the variety of off the shelf program and cloud services is huge, there are times when they don't meet your business needs. You may have some specific data that you want to store and see in a specific way. That's when creating your own database is worth considering.

WHY CHOOSE A DATABASE?

Many people really mean a list when they say database. They want to extract specific information from that list. A spreadsheet will often suffice in those situations. A list in an Excel spreadsheet that uses Pivot Tables and lookup formulae can be used to store data and produce reports.

For example, you can create an asset register of all the computers, tablets and other devices in your business. You can then use Pivot Table reports to find how many of each device type you have, when they are scheduled for replacement and where the devices are located.

As long as you capture the information in your spreadsheet, you can report on it.

This approach delivers flexibility. If you need to capture a new piece of information, then all you need to do is add another column.

BUT DO YOU REALLY NEED A DATABASE?

If a spreadsheet isn't going to work for you, then it's time to consider a database application.

If you're new to creating and using a database, you shouldn't worry too much. Although these tools started as being complicated and hard to use, most come with a bunch of preconfigured databases that are ready to use but can be modified relatively easily.

Some applications, such as FileMaker Pro, have an iOS version (called FileMaker Go) so you can remotely access your data on a mobile device. Like many other database programs, you can also securely publish your data to the web so it can be accessed from any computer.

This can be handy if you want to send data to clients or staff outside the office.

You're not limited to running your database on your own server or computer. Many internet service providers offer database solutions that you can run remotely. Many website hosts offer MySQL as a free service.

MySQL is an open-source database, so it won't cost you anything although you will need to engage someone with the expertise to create your database and an application that can access the data it holds. This is a more complex solution, but it does offer you increased flexibility.

FOUR WEBSITES TO HELP PRODUCTIVITY



SANEBOX

(sanebox.com) One of the many problems with email is that there's too much of it. That's why I use

SaneBox. It looks at the senders and subject lines of your messages (not the body) and decides which are important and which can wait. It then sorts your messages accordingly. It can also do more sophisticated filtering.

As a result, I see only important email in my inbox, with the rest safely stored somewhere else for later review.



BASECAMP

(basecamp.com) I work on projects with people all over the world. The idea of managing such

projects just made me tired until I used Basecamp.

The multiplatform web-based project management service lets web-connected team members share files and task lists, and engage in discussions. Basecamp sends updates via email.

HEMINGWAY

(hemingwayapp.com) Hemingway is a big improvement on grammar checkers. It searches your text for common errors and complex sentences.

Overly long sentences get yellow or red highlighting (depending on how badly the app thinks you've blown it), adverbs get blue, complex words get purple and instances of the passive voice receive a green shade. I copy text into Hemingway, make a few edits and then copy and paste it back into my writing app.



RESCUETIME

(rescuetime.com) Ever wondered at the end of the day how productive you've been? RescueTime will

tell you. The combination application and web service monitors your activity on your Mac and then provides detailed reports and a productivity rating. You can see which apps and websites you spent the most time in.

— DAVID SPARKS



FileMaker.
An Apple Subsidiary

PROUDLY SUPPORTING MAC IN BUSINESS

Accounts - multi-company & currency, parent child, multi address, integrated google maps, CRM - **Payroll** - payrun, superannuation, superannuation adjustment, next of kin, company, department, class, multi-award, RDO, cost splitting by department, multiple bank accounts, leave loading, allowances, child support, leave loading, rebates, salary packaging, commission structures, salary sacrifice, workers compensations, unlimited super funds per employee, annual leave, long service leave, carer & personal leave, future leave, accumulators, employee log file, Statement of Leave, payrun log, service, loan, reversals, capital allowance schedule - **Job Projects** - resources, activities, time sheets, allocations, job project invoices, job project credit memos, details, cost, analysis, job project financials, planning and quoting, billing, GL budget, resource & project gantt charts, tracking notes - **Inventory** - manufacturing, bill of materials (BOM) , size/colour style matrix, unlimited barcodes per product, formula pricing, hire, lay by, multi-shop, batch and serial number tracking, inward goods, arrivals & deliveries, resources, price-book, multiple locations, multi-department, open to buy forecasting integrated emailing, document management, integrated soft phone. Sales reps, quotes, orders, invoices, requisitions, purchase orders and purchases, delivery run maintenance, dashboards, show reports, stocktake entry, transfer entry, build entry, unit demand, manifest, manager, asset purchase - **Management** - statement of position, months activities, cash & account movements, tax calculation, auditing tools, FX currency settings - **Assets** - passwords, password management, location management, tax and company depreciation, serial number tracking, warrantee storage, insurance details, barcode, company and tax valuation, computer equipment details, disposal, purchase, revaluation, repair, service, loan, reversals, capital allowance schedule - **Utilities** - User access inquiry, system controls, master defaults, remote access defaults, co inquiry, department inquiry, task inquiry, organisation chart, work flow rules inquiry change menus and names, server administration, web server - **Workbook** - CRM, contact management, tracking notes - **System wide** - document management, CRM, contact management, tracking notes, wysiwyg report writers, SQL database, web book query editor

www.sapphireone.com



HOW DO YOU CHOOSE A DATABASE SOLUTION?

There are a few simple questions you need to ask yourself to help you choose the best database solution for your business.

- Do you really need a database or will a list in a spreadsheet suffice?
- How will the data be accessed? Will I need it made available over the internet or on mobile devices? Will the data need to only be accessed inside your network or remotely?
- If you choose a commercial database program, will one of the templates in a commercial system suffice or will you need to pay a developer to assist?
- What budget do you have? Remember, even free, open-source software may require support that will cost.

If you can answer those questions, you'll be well on the way to make a smart decision for your business.

APPLE, IBM LAUNCH PARTNERSHIP FOR MOBILE ENTERPRISE APPS AND SERVICES

BY DAN MOREN

Historically, enterprise computing hasn't been one of Apple's strong spots. But ever since the introduction of the iPhone and iPad, the company's presence in the business market has seemed to be almost continually expanding. In July, that presence expanded even further as Apple and IBM announced a joint venture of mobile business apps and services.

"For the first time ever we're putting IBM's renowned big data analytics at iOS users' fingertips, which opens up a large market opportunity for Apple," Apple CEO Tim Cook said in the companies' joint

press release. "This is a radical step for enterprise and something that only Apple and IBM can deliver."

The deal has four major components. First, and arguably most important, the two companies will collaborate on building software – including native iOS apps – for industry-specific tasks. Which industries? Among those mentioned are "retail, healthcare, banking, travel and transportation, telecommunications and insurance," though the companies say that there will be more. These apps, under the heading of IBM's MobileFirst brand, will be available beginning this spring, and will be released throughout 2015 as well.

IBM is also bringing to bear its expertise on services, where it will provide end-to-end cloud-based solutions for many common enterprise tasks, including analytics, workflow and cloud storage, device management, security and integration. Also under that heading are a private app catalogue, security services for data and transactions, and a productivity suite.

The two companies are also teaming up on support, with AppleCare for Enterprise serving IT departments and end users 24 hours a day, seven days a week; on-site service will be provided by IBM. And, finally, IBM will also be selling complete

solutions that package iPhones and iPads devices along with setup and management.

Services have been one area in which Apple has often come under fire. Partnering with IBM, the bread and butter of which has been enterprise services since it sold off its consumer arm to Lenovo in 2005, is a smart move for Apple. It allows the company to get a strong foothold in the market without having to divert its attention from its core market, consumers.

It seems like a win-win situation for both IBM and Apple, which have been both direct competitors and allies in the technology market over the last three decades. Though the two companies went head-to-head in the early era of the personal computer, they also worked together on the PowerPC platform that powered Macs from 1994 until Apple began its shift to Intel in 2006.

"This alliance with Apple will build on our momentum in bringing these innovations to our clients globally, and leverages IBM's leadership in analytics, cloud, software and services," said IBM CEO, president, and chairman Ginni Rometty in the company's combined statement. "We are delighted to be teaming with Apple, whose innovations have transformed our lives in ways we take for granted, but can't imagine living without." ■



Macworld
AUSTRALIA

MAC IN BUSINESS LAUNCHES

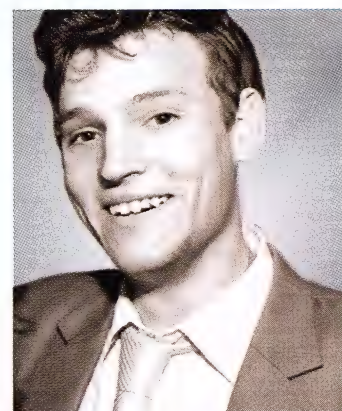
The new home for business-minded Apple users on macworld.com.au

While many Mac, iPhone and iPad owners use their devices for purely personal pursuits, there are those who document, record and share as part of their day to day work. What are the most efficient and effective hardware and software options for your needs? How can you start using it immediately to drive sales, connect with colleagues, create powerful presentations, reduce communication charges?

We examine the latest technology for enterprise users to help you make the best use of your time and resources for your business.

Jonathan Stewart - Editor of *Macworld Australia*

We started this section as we appreciate that technology is a critical foundation for the success of your business.





APP GUIDE

Cool software for the iPad, iPhone & iPod touch.



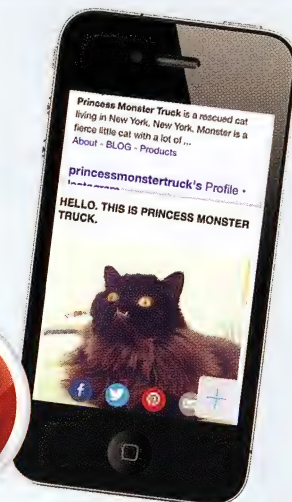
STREAM WEB

UTILITIES

MAZ Digital

IPHONE & IPAD FREE

Stream Web is a truly mobile-first browser for iOS and takes a much different approach. Stream aims to simplify the experience with intuitive gesture-based controls, a full-screen mode, and an easy way to save pages for later or share clips with your friends. Just tap the plus sign on the bottom to launch a new tab, and toggle back and forth between tabs by swiping along the bottom edge of the display. Or, you could look at two tabs at once by opening them in a 50/50 split on the screen. As you scroll, the gesture controls come in. A swipe up from the bottom brings the search bar back, and a swipe down refreshes the page. If you tap on a link, swipe to the right to go back a page.

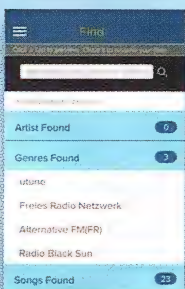


HITCH RADIO

SOCIAL NETWORKING

Hitch Radio

IPHONE FREE



This free iPhone app makes listening to the radio a social networking experience. Just choose to tune in to one of 20,000 stations – including music, talk, sports and more – then let your friends know what you're listening to. They can click to 'hitch' a ride with you on your streaming station, ensuring all of you get to share the listening experience.



SPACE HULK

GAMES

Full Control Studios

IPAD \$12.99



Space Hulk is an emotional experience that's hard to match. On top of the source material being superb, this is a strong adaptation for the iPad – not a flawless one, granted, but with many of the weaknesses of the PC edition expunged. *Space Hulk* is \$12.99, and has in-app purchases to unlock additional missions. But the bundled missions are a decent selection that should last you a fair time.

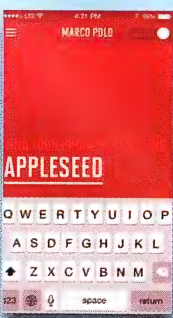


MARCO POLO

UTILITIES

Matt Wiechec

IPHONE \$1.29



Remember the classic pool game, *Marco Polo*? This app works exactly like that. You shout "Marco!" when you can't find your phone, and your phone will shout back "Polo!" All you have to do is allow the app to access your iPhone's microphone and leave it running in the background, and it will always listen for your cry for help.



THOMAS WAS ALONE

GAMES

Barossa Studios

IPAD \$10.99



Thomas Was Alone is a platform-hopping game with humorous narration and warm storytelling. Over the 100 levels, serious challenge is rare, but the journey is gratifying and the adventure as a whole really resonates with you. Some will surely guffaw at the \$10.99 price tag, but the memorable several-hour campaign justifies the premium rate.



GIFMILL
PHOTO & VIDEO
Peak Systems
iPHONE FREE



GifMill lets you create GIFs by importing either video or still imagery from your Camera Roll. From there, you can doctor it by changing the speed, the quality, or the size, positioning it in landscape or portrait, changing the playback, adding text or filters. GifMill's only real weakness is that it won't let you save projects to work on later.



BATTLEHEART LEGACY
GAMES
MikaMobile
iPHONE & iPAD \$6.49



Battleheart Legacy is that rare original title for iOS that is a great title in its own right, combining terrific writing, intuitive mechanics and a deep world to become much more than the sum of its parts. Developer Mika Mobile has a real gem of a game here, giving the player a colourful, vibrant world that makes the requisite level grinding an actual joy.



SKRWT
PHOTO & VIDEO
mjagielski
iPHONE \$2.49



The \$2.49 SKRWT app for iPhone is a highly praised photo-editing app, one that fixes the distorted lines of your phone's wide-angle snapshots and gives the pictures more of a professional look. The app includes features like auto-cropping, an adjustable grid and other 'high-precision editing' tools.



SXPd
GAMES
Little Chicken Game Company
iPAD \$2.49

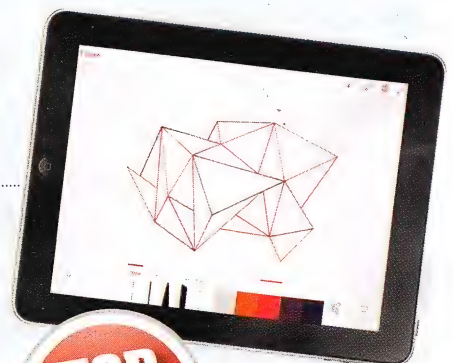


This iPad game looks like you're playing in a black-and-white graphic novel of unusual intensity. It's set in a future US state called 'New Royale', where an investigative unit must find a weapon of mass destruction before it goes off. There are six chapters to play and read through; the design is created by DC Comics artist Duke Mighten.



ADOBE LINE
PRODUCTIVITY
Adobe
iPAD FREE

Line is an outright masterwork from Adobe: an easy-to-use app with incredible power behind it. At its heart, the app is designed to help you easily draft and draw shapes, lines and other geometrical objects. It does so with a wide array of guides (called Trace Packs and Stamp Packs) that you can enlarge, resize and twist on your canvas. Line has a variety of tools you can use to trace these objects, all named for various real-world objects. There's a 2H pencil, HB pencil, .25MM pen, .50MM pen, brush, marker and eraser; all of which can be laid down in a variety of colours. The canvas also offers snapping and guide lines, and — even cooler — a full perspective view to help you with vanishing points, grid work and more.





What Apple's WWDC announcements reveal about products to come

WWDC says a lot about the future of Apple from the size of the iPhone 6 to wearables.

If you were looking for the iPhone 6 or some revolutionary new product like the iWatch, WWDC was probably a disappointment. To the casual observer (and even some not-so-casual ones), Apple's big show may seem to have produced very little of consequence, with nary a reason to step foot in an Apple Store, let alone take out your credit card.

But to savvy Apple watchers, it was a wellspring of potential. Along with a pair of significant updates to OS X (Yosemite) and iOS (iOS 8), Apple unleashed a slew of tools for app makers, opening up exciting new avenues for iPhone, iPad and Mac apps. And though there might not have been any actual hardware announcements to speak of, the technologies unleashed at WWDC have clearly positioned Apple for a torrent of exciting new products – some perhaps even due this spring.

MORE PIXELS, FEWER PROBLEMS

We've been hearing that the iPhone 6 will have a larger screen since before the launch of the 5s, but even if you

don't trust the mounting evidence, Apple dropped a few hints of its own at WWDC. The most obvious one is right in the Xcode 6 beta, which includes a new simulation option for 'Resizable iPhone'. But perhaps even more foretelling is the way we interact with apps and menus in iOS 8.

Apple has long touted one-handed operation as one of the iPhone's greatest strengths, and iOS 8 is teeming with subtle navigational enhancements that suggest the same will be true when the display grows. Interactive notifications give us defined spaces to respond without needing to switch our grip, extensions let us work in various apps while avoiding multiple trips to the multitasking carousel and Mail's new triage options and drafts management dramatically cut down on the number of taps and amount of scrolling we need to do.

Even Messages' new radial recording menus push the controls toward the edge of the screen, making it natural to operate with one hand and limiting our thumb calisthenics.

LOOK BUT DON'T TOUCH

Back when Steve Jobs unveiled iCloud at WWDC 2011, he declared he was demoting the Mac to "just be a device". OS X Yosemite finally solidifies that vision, and while it may have taken its share of design cues from iOS, Apple made it clear that OS X isn't going the way of Windows 8 anytime soon. Features like Handoff and Instant Hotspot create a tighter relationship between all of our devices, but nothing about OS X Yosemite gives the sense that Apple is considering a touch-screen iMac.

Retina displays, however, are another story. Along with a curious line of code that references a whopping 6400 x 3600 resolution, Yosemite's lighter, flatter interface and thinner fonts are clearly built to look best on the sharpest of screens. They may not all make it in before 2015, but it shouldn't be long before visual pixels are obsolete across all of Apple's displays.

WEAR OH WEAR?

iWatch rumours have been around long enough for Samsung to release



two generations of Galaxy Gears, but it suddenly seems like an Apple wearable device is closer than ever. Mark Gurman of *9to5Mac* published an exhaustive report examining how the technologies in iOS 8 and OS X Yosemite could be used in a scaled-down iOS interface, and much of it mirrors our own observations – like how the Health app ties in nicely with the iWatch's presumed new fitness sensors and how Notification Center widgets could work on a tiny screen.

Moreover, several of the technologies that Apple's Craig Federighi demoed at WWDC could speed third-party developers on their way to creating software for a wearable device. For example, the introduction of Extensibility makes it easier for developers to share code between different versions of the same app. Likewise, cross-app communication could allow an app on an iOS device to talk to a companion app on a wearable device. And, of course, the aforementioned resizable screen option in the iOS Simulator makes it feasible to actually test software for a smaller-screen device.

SECURITY GUARD

Apple has always taken security seriously, but iOS 8 ups the ante considerably, taking on location trackers with randomised MAC addresses and adding heavy layers of encryption for enterprise users. And beyond the system-level safeguards, Apple has opened up Touch ID to developers, allowing third-party apps to better protect our data and safely integrate it with the sites that request it.

So it only seems natural that Apple's fancy fingerprint scanner would make its way into new iPads later this year. The 5s was something of a beta run for Touch ID, with speed and accuracy gradually improving in each iOS 7 update. Now that it has an API, Apple is signalling that Touch ID is ready for prime time, and it will no doubt be a central feature across all of this year's iOS devices.

SURPRISE FACTOR

But above all, if there's one thing we can take away from WWDC, it's that Apple can still keep a secret. From Swift to Handoff, Quick Type to iCloud Drive, Apple truly kept us on the edge of our seats during the keynote, even without any hardware announcements

to grab the headlines. Throughout the entirety of the fun, lively presentation, Cook and Federighi seemed to revel in the reaction of the crowd in a way not seen since Steve Jobs himself controlled the slide clicker.

But it wasn't just about what we saw on the stage. WWDC returned an air of mystery and excitement to Apple that had been missing from some more recent events; now that it has manufacturing plants all over the world, Apple can't possibly keep everything under wraps, but Cook proved he is serious about doubling down on the secrets that matter.

And it's a pretty good bet that he'll pull a couple more out of his hat before the year is up. ☞



Byte My Apple Snappgrip

The Snappgrip for iPhone 5 and 5s features a detachable grip that allows you to safely grip your phone and control its photo-taking ability with a series of controls that manage everything from focus to shutter release. The case, which also sports a standard quarter-inch thread for attachment to a tripod, is available in white or black.

US\$69.99 + shipping / Byte My Apple / www.bitemyapple.co

GEAR
GIZMOS
GOODIES

GADGET GUIDE



Elipson Lenny

The Lenny is a foghorn shaped portable speaker resulting from the collaboration between audio maker Elipson and the interior design team at Habitat. The speaker offers Bluetooth connectivity, an eight-hour battery and is designed to withstand water splashes. The Lenny, weighing in at 3kg, features two 2.5in loudspeakers and a 4in passive loudspeaker.

\$599

Audio Dynamics

www.audiodynamics.com.au



Acer C205

The Acer C205 is a portable and lightweight projector with two hours of cable-free projection, 200 ANSI lumen projection, an HDMI input port and two 2W speakers. The Acer weighs 0.3kg, measures 14.4 x 10.8 x 2.7cm and has a LED lifespan of 20,000 hours in standard mode, which can be stretched to 30,000 when using low-power options.

\$499

Acer

www.acerstore.com.au



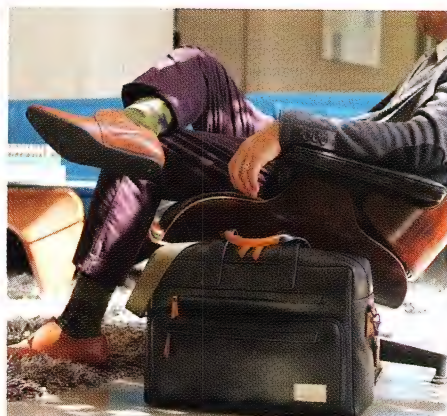
Nomad NomadClip

The NomadClip is a "a portable charging cable the shape of a carabiner". It provides the usual USB-to-Lightning-connector capability, but it's designed to clip onto your belt or bag until you need to charge and sync your iPhone or iPad. It's got a steel frame, but it's not made for climbing or other weight-bearing activities. (Pre-orders are required.)

US\$39 + shipping

Nomad

www.hellonomad.com



Hex Marquee Laptop Briefcase

The US\$279.95 Marquee laptop briefcase is made from genuine leather, with plenty of storage space for everything from documents to accessories. It also includes dedicated zippered pockets for a 13 to 15in laptop and a tablet. The briefcase comes in black with camouflage lining, leather zipper pulls and green shoulder strap. Be wary though, the shipping cost is sizeable.

US\$279.95 + shipping

Hex

www.shophex.com



Razer Junglecat Mobile Game Controller

The Razer Junglecat Mobile Game Controller is a case that snaps onto your iPhone letting you wirelessly control your games through old-school buttons and directional controls. The accompanying Razer Junglecat iOS app allows users to remap all of the gamepad's buttons and alter each individual button's sensitivity level. The case is available in black or white.

\$139.95

Razer

www.razerzone.com



iSkelter Beats Headphone Station

Apple has already brought Beats headphones into Cupertino's fold. The US\$39.99 Beats Headphone Station brings the two companies together on your desktop, as well. The wooden iPhone station features a hanging arm for your Beats headphones – or any other over-the-head headphones. The station is made of hand-polished, eco-friendly bamboo and offers a place to store your iPhone or iPod.

US\$39.99 + shipping

iSkelter

www.iskelter.com

Pure Evoke D2

The Pure Evoke D2 is a DAB digital and FM radio speaker with a walnut veneer casing. The Pure speaker features 20 presets (10 digital and 10 FM), kitchen and sleep timers, tone or radio alarm, a headphones socket and a 3.5mm aux-in port for audio playback from devices. The Pure's audio is driven by a 3in speaker.

\$169 / Pure / www.pure.com/au





MORNING
CHECKING TWEETS
IN BED



COFFEE
TIME MORE TWEETS

YAWN



WORK CATCHING UP
ON THE NEWS



READING INSTAPAPER

LUNCH

OUT WITH THE iPhone



BACK
AT
WORK

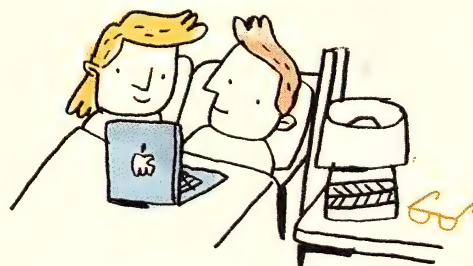
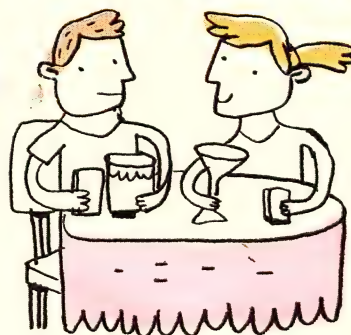
CLICK
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WAITING
in LINE



OH,
HI

AND
THEN:



HOW TO USE THE WEB TODAY

OUR TEAM OF EXPERTS SHARE THEIR TRIED-AND-TRUE
TOOLS AND ROUTINES FOR STAYING ON TOP OF THE MODERN WEB

In the 25 years since Tim Berners-Lee invented the web, the online world has evolved almost beyond recognition. To get a sense of where the web is today, we ask a handful of our best experts to describe their typical daily web workflows. We also take a critical look at the state of web browsers for OS X and iOS, asking: is there anything new these apps can do? And we ask Rich Mogull to give some advice for handling today's biggest online security risks. The results will, we hope, give you new ideas for managing the daily inundation that is the web.



HOW WE SURF

IN THE BEGINNING, WEB SURFING WAS SIMPLE: YOU COLLECTED A BUNCH OF BOOKMARKS, AND THEN REGULARLY VISITED THOSE SITES TO STAY ABREAST OF WHAT WAS NEW. BUT AS THE WEB MATURED, OUR TOOLS AND WORKFLOWS FOR FINDING AND CONSUMING THAT CONTENT HAD TO ADAPT. SO, HOW DO OUR EXPERTS ACCESS WEB CONTENT THESE DAYS?

GLENN FLEISHMAN

I wake up, fish around for my glasses, fire up my iPhone 5s, and launch Twitter to see what nonsense has broken out overnight. A quick scan lets me know whether I need to write or pitch a story before breakfast.

After nearly 15 years of relying on NetNewsWire (netnewswireapp.com) and RSS/Atom feeds to keep up-to-date, I have for the most part replaced RSS with Twitter. Until just a few months ago, I would still fire up an RSS reader on my laptop (I never found an iPhone or iPad

reader I liked) and scan through hundreds of headlines every morning. But with the demise of Google Reader in 2013 and the lack of clarity around NetNewsWire's future, I winnowed my RSS feeds and switched to following Twitter accounts that mirrored newsfeeds whenever I could.

I use Tweetbot for Mac OS X (tapbots.com) and for iOS (almost entirely on my iPhone) and I depend heavily on its in-app Safari browser in iOS and its Instapaper (instapaper.com) integration

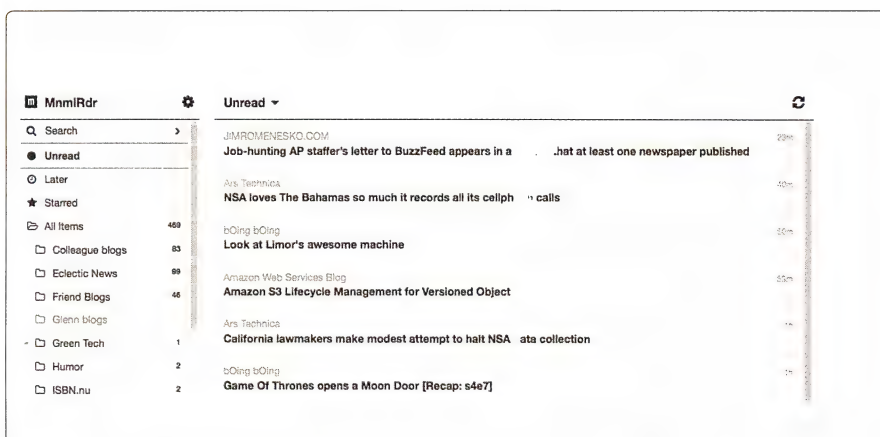
on both platforms. When I see something useful in Twitter, I either click to open the item or right-click to send it to Instapaper for later consumption. I've also connected Pinboard's (pinboard.in) bookmarking service to my Twitter account. Now, every URL I tweet or retweet is captured from my stream and stored, and I can find URLs and sites later without saving all of them from Tweetbot.

Over the years, I've unsubscribed from nearly all email newsletters; by the time a newsletter arrives, any news it might convey has already been tweeted.

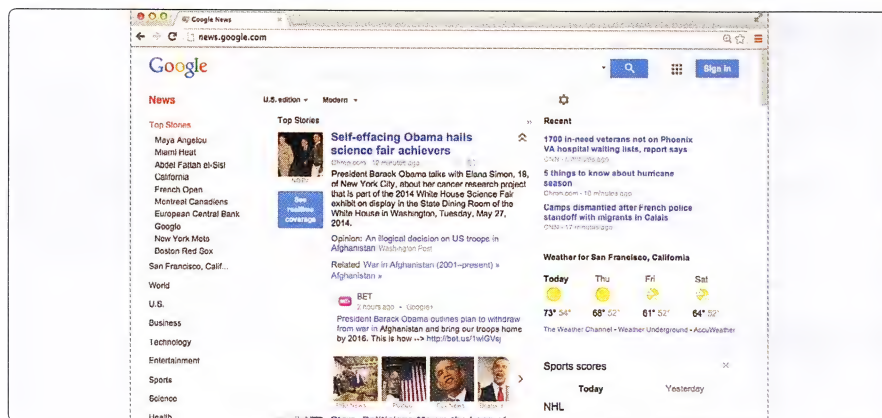
The only sites I regularly still visit are *The New York Times* (nytimes.com) and Daring Fireball (daringfireball.net) – the former because it updates frequently, the latter because I often miss some of the smaller items that John Gruber posts through his site's Twitter article feed.

I do still consult RSS every few days, because some sites don't have Twitter feeds and I don't see every post from those that do. But instead of updating to the latest version of NetNewsWire, I switched to the hosted service Mnm1Rdr (mnm1rdr.com), a lightweight RSS reader that imported my OPML subscription file without a hitch.

There are some aspects of RSS that I miss. But Twitter's currency and crowd wisdom/crowd foolishness mean that the most interesting and most ridiculous stories across the community I follow rise to the top and repeat enough that I don't miss the details.



Mnm1Rdr. Instead of updating to the latest version of NetNewsWire, Glenn Fleishman switched to the hosted service Mnm1Rdr.



Google News. Christopher Breen brushes up on the hot stories of the day via Google News.

CHRISTOPHER BREEN

My interaction with the web begins shortly after I first crack open my eyes. My iPad is not only the last device I touch before turning in, but also the first one I grab in the morning. From the comfort of my bed I check Twitter, email and my browser to see whether I need to get up right this second or am able to lounge around for a few more minutes.

Specifically, when tapping into Twitter (using Tweetbot) I look for interesting links from the people I follow. If a story gets tweeted more than once by people I trust, I tap on it and read it inline – avoiding the JavaScript clutter of ads and pop-ups that haunt Safari and make stories more difficult to read. If an article is particularly graphics- or video-rich, I'll tap and hold on the link and choose to view it in Safari.

This reliance on Twitter and the curation of web content by people I follow has really changed the way I use the web. Before Twitter, I found it far too easy to get stuck visiting the same old sites in my browser; I never really took to RSS. Following Twitter links gets me to visit sites I may not have heard about, or to read the work of writers who are new to me. Of course, it requires me to be discerning in deciding whom to follow.

Once I'm through with my Twitter survey, I still scan some of my usual web haunts using whatever browser and device are closest at hand. (I sync my Safari bookmarks through iCloud.) I browse Apple-centric sites, including iMore (imore.com), TUAW (tuaw.com), The Mac Observer (macobserver.com) and Daring Fireball (daringfireball.net). If I'm going to

be appearing on a radio show or a podcast (as I do a couple of times a week), I brush up on the hot stories of the day via Google News (news.google.com).

LEX FRIEDMAN

My kids wake me up before I'm willing to acknowledge that it's time to start the day. Still groggy, I reach for my iPhone.

I look over the lock screen to see all the notifications that arrived during Do Not Disturb's nighttime reign. If a critical email, Facebook notification or Secret alert is waiting, I'll head to one of those apps first. Otherwise, Twitter, via Tweetbot, is my first stop.

As an unapologetic Twitter completist, I think catching up on the tweets shared since I retired the night before is a fine way to wake up. I tap links of interest and send them to Instapaper if I don't have time to read them fully.

By the time my younger two are finishing their cereal, my iPad mini makes an appearance. I turn to Reeder (reederapp.com) to catch up on RSS. Now that I no longer work on staff for

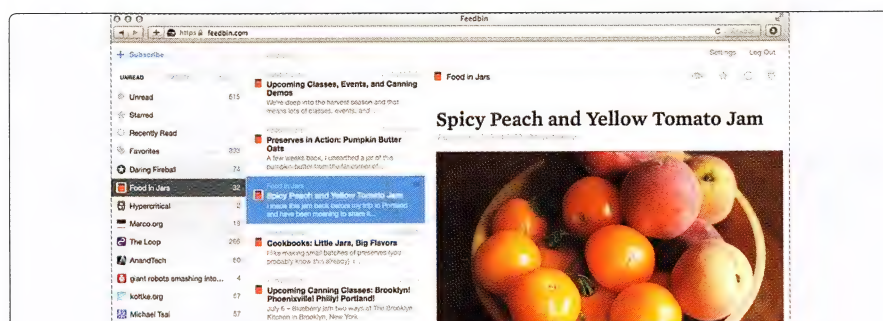
Macworld, I'm less obsessive about the number of Apple news sources I follow. But I haven't fully shaken my RSS habit. I subscribe to hundreds of sources in Feedbin (feedbin.com). I use Reeder on the iPad to navigate the feeds quickly. If my MacBook Pro is nearby, I'll use Feedbin's web app.

By 9am my workday begins in earnest. Because my days are chockablock with phone calls and email, I often fall behind on Twitter. Tweetbot on my Mac notifies me if something deserves my attention, and Tweet Marker (tweetmarker.net) keeps my timeline in sync if I decide to catch up on tweets at lunch. I leave Moment (tapmates.com/moment) running in my menu bar to notify me when something worthwhile appears on Facebook, which isn't often.

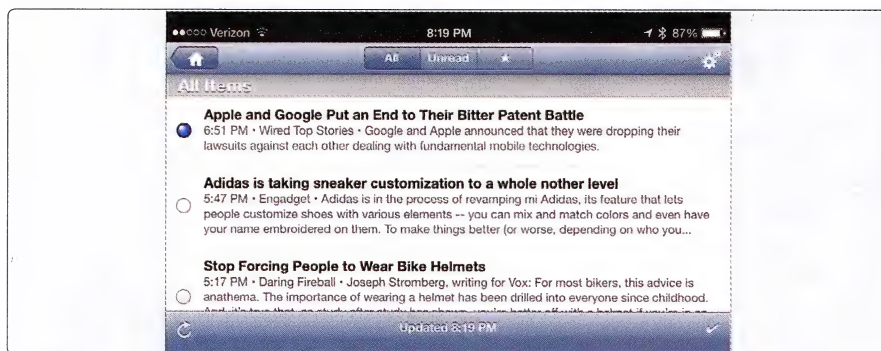
Sometimes, I think about ignoring RSS or Twitter. Instead, I've learned to be disciplined about my consumption. I catch up while I'm watching TV at night or (as I've said) when I wake up in the morning. I occasionally sip from the stream at lunch or while on hold for a conference call. Otherwise, the demands of work and family prevent me from devoting hours to the service.

I also continue to get better at skimming – and culling. I mute topics aggressively in Tweetbot and Feedbin, I silence overly communicative Twitterers, and I unfollow feeds and friends if their signal-to-noise ratio just doesn't work for me anymore.

At 5:30, my workday ends and Airplane Mode goes on. At bedtime, Do Not Disturb kicks in. I read from my Kindle Paperwhite – which has no notifications at all.



Feedbin. Lex Friedman subscribes to hundreds of sources in Feedbin.



FeedReader RSS Reader Pro. Since Mr. Reader isn't available for the iPhone, Joe Kissell uses C.B. Liu's FeedReader RSS Reader Pro.

JOE KISSELL

At the crack of dawn, or two hours before I want to be awake (whichever comes first), I hear either "Good morning, Daddy!" from my four-year-old or "Waaaaaaaah!" from my newborn. To aid my struggle back to consciousness, I grab my iPad mini next to my bed. I glance at my Twitter feed (using Tweetbot) and skim a handful of RSS feeds (using Mr. Reader; curioustimes.de). Once I have a grip on the morning's crises and tasks, I move on to breakfast.

Some mornings I work at the local café while my older kid is in preschool; otherwise, I'm camped in my home office. Either way, I use one of several Macs. I keep the desktop Tweetbot open so I can dip into Twitter. I occasionally use Vienna (vienna-rss.org) for RSS feeds on my Mac, but browsing RSS content feels more natural to me on an iOS device.

When I'm not in front of a computer, I have my iPhone or iPad within arm's reach. I use them interchangeably to check Twitter and RSS throughout the day so that I'm never far behind.

But since Mr. Reader isn't available for the iPhone, I instead opt for C.B. Liu's FeedReader RSS Reader Pro. (FeedReader works on iPads, too, but I prefer Mr. Reader's interface on the larger screens.) The unifying feature of the three RSS readers I use: they support FeedHQ (feedhq.org) feed syncing.

Regardless of my location or the device I'm using, most of my web browsing arises from Twitter links or articles in my RSS feeds. I'll search the web for anything I'm curious about, and I visit several sites nearly every day for work reasons (mainly Trello.com and discussion forums for software I'm writing about), but I

no longer maintain an extensive list of bookmarks. When I follow someone on Twitter, it's because I genuinely want to read what they have to say. So I keep that list short and prune it when the rubbish outweighs the interesting stuff. And though I follow RSS feeds for tech news and several other topics, I avoid general news sites for my sanity's sake.

TED LANDAU

The first thing I do when I get up is go to my home office and check my email. Amid the avalanche of junk email will be messages from the mailing lists I subscribe to, including those for *The New York Times* and *Time*. I scan the headlines for articles of interest and, when I find one, click through to read it in Safari on my Mac.

Over coffee, I use my iPad to check out local news and my favourite comic strips. I also browse Zite (zite.com), my newsreader app of choice. I've optimised it to deliver mainly tech and entertainment content.

Then it's back to my office for what increasingly seems like my main job: keeping up with my Twitter feed. For this I use Tweetbot on my Mac. I continue to check my feed throughout the day, shifting to Tweetbot on my iPhone if and when I leave the house. For tweets that contain links of interest, I click through to read the full article. If the spirit moves me, I also post tweets of my own.

My Twitter list consists mainly of friends and colleagues, but also includes many websites, such as The Mac Observer (macobserver.com), TUAW (tuaw.com), Re/code (recode.net) and Daring Fireball (daringfireball.net). My list focuses on Apple and tech-related news, but also politics, science and entertainment. As a



Zite. Over coffee, Ted Landau browses Zite, his newsreader app of choice.

result, almost everything of interest to me that happens during the day appears in my Twitter feed – often multiple times. The only problem is that I now get more than 1000 tweets a day, making it hard to keep pace. Some days I skip over several hours' worth of tweets.

Because I now rely on Twitter feeds to alert me to news, I rarely go to websites' homepages anymore. And I no longer use RSS feeds or news-aggregator sites.

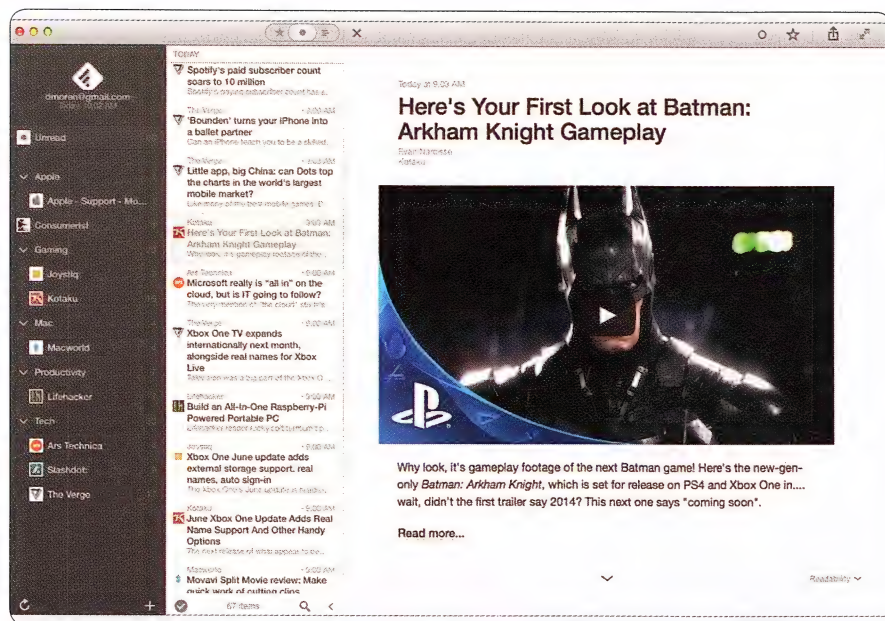
Beyond all this, I periodically check Facebook, the weather, the stock market, movie times and such – usually from my iPhone or iPad but also from Dashboard on my Mac. For breaking news, I depend on notification alerts from the AP Mobile app on my iPhone.

In the time that's left over, I try to get actual work done.

DAN MOREN

First things first: I read the comics. That used to mean opening up the newspaper. Now it means clicking a folder in Safari's bookmark bar and having the 10 or so that I read open up in one window's tabs. Except for XKCD (xkcd.com) – I don't know why, but I always type that one in. The same goes for my movie and TV news sites, Ain't It Cool News (aintitcool.com) and TVLine (tvline.com), respectively.

Once I'm awake, it's time to see what's going on in the world. That usually means Twitter for me. Though I have accounts on Google+, Facebook and App.net, I really only read Twitter. I try to keep the number of people I'm following down to around 200, because I read every single tweet. (Well, except for occasionally applied mute filters. Thanks, Tweetbot!)



Twitter. Twitter is usually the first place Dan Moren gets his breaking news.

Twitter is an invaluable filter for finding things of relevance to both my professional and personal lives. It's usually the first place I get breaking news.

After Twitter, I turn to RSS. When Google Reader shut down, I transferred the back end of my RSS feeds to Feedly (feedly.com). For a while, I read feeds in Reeder only on my iPhone or iPad, but lately I've been trying the public beta of Reeder's Mac version. I've also cut down my feeds: I have about 40 now, many of which update only rarely.

Of those, very few are Mac-specific. I try to keep up with general tech news, so I skim through Ars Technica (arstechnica.com), Slashdot (slashdot.org) and The Verge (theverge.com).

That's not to say that I don't follow any Apple-related news. I subscribe to several single-person sites, including Daring Fireball (daringfireball.net), Apple Outsider (appleoutsider.com) and John Moltz's Very Nice Website (verynicewebsite.net) – those are places where I tend to read every single post. As the day progresses, I might check a few other Apple-oriented sites such as 9to5Mac (9to5mac.com), MacRumors (macrumors.com) and MacStories (macstories.net), just to see if I missed anything.

And that's about it. I long ago gave up the hope of being comprehensive in my web consumption.

SUSIE OCHS

I sleep with my iPhone plugged in next to my bed and before I even sit up all the way, I've usually checked Twitter and sometimes Facebook. I briefly switched to Facebook Paper (facebook.com/paper) since I liked the way it combined trending news and pictures of friends' kids, and it doesn't get as cluttered with ads and inane throwaway posts. But the type is just too small.

For Twitter I love Tweetbot; its mute feature is a godsend for temporarily quieting friends overtweeting some conference or event and for permanently silencing dumb hashtags. And thanks to iCloud syncing between the Mac and iOS Tweetbot apps, I can stay caught up in theory; in reality I'm never caught up, and some tweets never get read. I keep some accounts I really need to follow for work in a separate Twitter list, which helps. Tweetbot also makes it super easy to save links to Instapaper, which I do constantly. In fact, I'll spend most of my commute chipping away at my Instapaper queue.

Once I'm at my desk, I check on my RSS feeds on Feedly. Thanks to IFTTT (ifttt.com), I can send anything I tag with save to Evernote (evernote.com); if I see something I want to read later, IFTTT sends anything I bookmark in Feedly to my Instapaper queue. It sounds complicated, but basically Instapaper is the queue and Evernote is the filing cabinet.

I follow some feeds in Feedly, including Daring Fireball (daringfireball.net), Gigaom (gigaom.com), MacRumors (macrumors.com) and Re/code (recode.net), but I don't read much there: I just scan headlines and throw stuff to Instapaper. I check in periodically with that must-read Twitter list and peruse articles on Instapaper when it's time for a break.

Working on the internet is a balancing act between staying on top of the news and avoiding distraction. So I have one more IFTTT recipe that sends me a push notification if an RSS feed is updated with a particular keyword and I tweak the recipe constantly based on what I'm most interested in at the time.

By the time I get home, I'm typically sick of reading – until I open my Instapaper queue on my iPhone and see all the stuff I bookmarked throughout the day and didn't have a chance to read. I'll get to that in a couple of hours. But first I have to spend some time with my toddler, whose tastes run more toward Dr Seuss.



IFTTT. Thanks to IFTTT, Susie Ochs can send anything she tags with 'save' to Evernote.



THE STATE OF THE BROWSER OS X

THE FIRST MAC WEB BROWSER ARRIVED IN DECEMBER 1992: MACWWW WAS PROGRAMMED AT THE CERN RESEARCH CENTRE BY ROBERT CAILLIAU (WHO HAD HELPED WORLD WIDE WEB INVENTOR TIM BERNERS-LEE FINE-TUNE HIS INITIAL IDEAS) AND NICOLA PELLOW.

MACWWW HAD NO COLOUR OR IMAGES AND USED SIMPLE BOLDFACE TO INDICATE HYPERLINKS. IN THE 22 YEARS SINCE, MAC BROWSERS HAVE EVOLVED A LOT.

BY NATHAN ALDERMAN

At this point, that evolution may have slowed down, but it hasn't stopped. Periodic major releases have largely given way to more frequent incremental updates. And even as distinctions between browsers have blurred, the big players still try to set themselves apart.

BATTLE LINES

Browser market share is notoriously difficult to measure. One reason is that the main sources of market data are online advertising networks, which track the devices that are viewing their ads. Because such samples are limited to the audience that happens to visit pages displaying each company's ads, they're neither comprehensive nor consistent with one another.

All of that said, an averaging of recent figures from three different sources – Statcounter, Wikimedia and W3Counter – reveals that overall (counting across all operating systems) Google's Chrome dominates desktop browsers, with about 37 percent of usage share. (That's a measure of the browsers that people use to view pages, not the number of computers they're installed on.) Mozilla's Firefox is second (with about 16 percent) and Microsoft's Internet Explorer is third (just under 16 percent), followed by Apple's Safari (at around 10 percent).

Chrome's popularity and its open-source nature help it influence other browsers, including Russia's Yandex browser (yandex.com) and China's Maxthon (maxthon.com). Even archival



Sleipnir. Sleipnir hides the URL bar in favour of tab-based navigation, aided by an elaborate set of gesture commands.

Firefox recently unveiled a revision to its interface that makes it almost identical to Chrome's, while Opera's recent versions have jettisoned an ambitious feature set to become more like Google's browser.

Chrome cloning makes sense for new entrants to the browser market. Chrome's broad user base has helped Google cultivate a wealth of useful extensions, which other programs built on its framework can share. But this trend also contributes to the growing similarity between Chrome and its rivals. Which browser lets you enter web searches in the URL bar and displays a palette of previously visited sites when you open a new window or tab? The answer is basically all of them.

Similarly, browser speed has lost its edge as a selling point. In real-world use on a modern Mac, all are more or less equally nimble.

MORE TRANSPARENT, MORE CONNECTED

Following Chrome's lead, browsers are now trying to hitch themselves to larger ecosystems. So, for example, most browsers now sync bookmarks and other settings across multiple devices. But Google and Apple are trying to go further.

Google has tightly tied Chrome to its other offerings, down to the Google Apps button in the interface. And Safari not only integrates with iCloud for sharing, maintaining reading lists and storing online passwords, but it also works with your Mac to use less power and save battery life.

Weaving a browser into a larger set of services and capabilities risks making it less distinctive, not more. (This seems to be

Google's endgame for Chrome, which has become an operating system for Google-designed laptops.) Browsers have only a few avenues left to explore.

WHAT'S NEXT?

Alarming gaps have recently come to light in Safari's and Internet Explorer's security defences. And the recent revelation of the Heartbleed bug – which could reveal passwords and other sensitive information on supposedly secure servers – has fuelled doubt about the web's overall safety. As hackers get smarter and people store more of their lives online, security could become the one feature that truly differentiates browsers.

Surprisingly, compliance with web standards remains a shortcoming of today's browsers. HTML5 has been part of the web since its first public working draft in 2008. Yet no current browser gets close to a perfect score on HTML5test.com's standards check. Even Chrome scores just 90 percent, while the latest version of Safari passes merely 75 percent of the site's compliance tests.

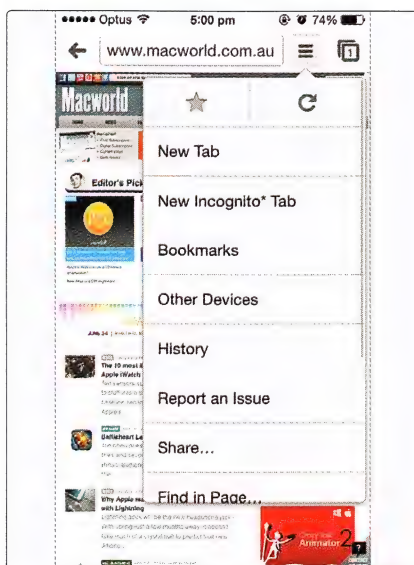
Other hopes for genuine innovation rest at the fringes of the market and within the guts of your computer. Safari 7 can trim its power use and put unneeded plug-ins to sleep because Apple controls the hardware it runs on. Apple's rivals could have a tougher time replicating that hardware/software integration – and Apple would be wise to press the advantage.

Furthermore, developers are still building browsers with unique features. Sleipnir (fenrir-inc.com), an oddball offering from Japan, hides the URL bar in favour of tab-based navigation, aided by an elaborate set of gesture commands.

The company at least deserves kudos for trying to innovate.

Still, even if a browser came up with compelling new features, those changes would quickly spread across the market. The browser is becoming a commodity.

That fate may not prove to be as grim as it sounds. If the web browser fades into the background, it may leave more room for innovation on the web itself.



iOS browsers. Pictured above from top to bottom: Safari, Mercury and Chrome.

THE STATE OF THE BROWSER iOS

A QUARTER-CENTURY AFTER THE CREATION OF THE WORLD WIDE WEB, MAC USERS CAN PICK ANY BROWSER THEY WANT, MAKE IT THE DEFAULT OPTION AND HAVE IT INTEGRATE INTO THE OPERATING SYSTEM WITH LITTLE PROBLEM. SEVEN YEARS INTO THE ERA OF iOS, HOWEVER, THAT SORT OF EASE OF USE IS STILL MISSING ON APPLE'S MOBILE DEVICES.

BY ANDREW HAYWARD

Sure, iOS device owners who are dissatisfied with the built-in Safari can easily download any of the many third-party options available on the App Store, including Chrome, Opera Software's Coast (opera.com), and iLegendSoft's Mercury (mercury-browser.com). However, Apple's closed mobile operating system prohibits you from making any of those browsers the default, and so limits their usefulness.

Clicking a link in Mail won't send you to Chrome. Even if you actively try to avoid using Safari on iOS, chances are good you'll still end up using it from time to time. As such, Safari has secured its grip on the iOS browser market by default. Chrome is Safari's biggest and best-known competitor and has become a hearty rival.

The lack of third-party default browsers is not the only hurdle that alternative iOS browsers have to deal with. Like Safari, third-party options must use the WebKit rendering engine – but they're not allowed to utilise Apple's own Nitro engine, which enables Safari to load JavaScript pages more quickly than its rivals do. Unless Apple loosens such restrictions to permit full-featured competition, mobile Safari is unlikely to lose steam anytime soon.

SATISFACTORY SAFARI

Given all that, it's reassuring that Safari is a pretty good mobile browser. What started as simple, limited software – albeit much better

than the browsers on rival handsets when it launched – has thankfully evolved into something worthwhile and user-friendly.

The release of iOS 7 did wonders for Safari, giving it a minimal face-lift in step with the rest of the operating system while also allowing it to focus more on the content you're seeking. Its light UI is quietly attractive, and the cards representing different tabs are a smart and slick fit for the iPhone and iPod touch. And Safari is no less elegant and refined on the larger screen of the iPad.

Despite its visual simplicity, mobile Safari offers some notable feature improvements in its most recent incarnation. iCloud Keychain is the most useful of those, as the tool keeps passwords and other private info stored securely in the cloud and makes it available on both iOS and the Mac OS. Shared Links is another nice feature, collecting the URLs your friends and colleagues drop on social networks, so that you can catch up later. And Reading List eliminates the need for a separate read-later app.

But Safari is not without its technical flaws. Security remains a question following Apple's quiet patching of a serious SSL/TLS security gap last February. Stability was also an issue in the initial 7.0 version release; iOS 7.1 has helped on that front.

Finally, although it's much more streamlined than its Mac equivalent, mobile Safari still takes its cues from desktop design tenets. It's a traditional browser adapted to touch, not one built from the ground up for mobile devices.

OTHER OPTIONS

Addressing those kinds of complaints gives third-party browsers a reason to exist on iOS. Only a few of these alternatives are both current and noteworthy; some previously promising efforts (such as Atomic) have lingered without updates in some time, making them easy to ignore.

Opera's Coast is the most visually appealing of the current bunch, as it's designed solely for a touch interface and it relies heavily on gestures. You'll find no URL bar or visible tabs while browsing. The only buttons offer quick access to Coast's striking home screen and your

recently viewed pages, respectively. You swipe to go back and forward, while taps and drags move bookmarks around the home screen. Browsing is fast, but Coast lacks advanced features and can be hard to learn. Still, Coast offers a very cool vision of what a web browser can be when it's unshackled from a mouse-centric design.

Compared with Coast's fresh approach, Chrome doesn't seem so different from Safari, but it is an intuitive browser with helpful features – and, best of all, it's entrenched in the Google ecosystem. You can easily sync your browsing history, bookmarks and passwords by logging in to your account, and you can send URLs to your mobile devices from the desktop. Other perks include Google's excellent voice search, prompts to translate foreign-language pages, and the ability to request the desktop version of a website.

Other alternative browsers deliver more customisation and deeper features for power users. MoboTap's Dolphin Browser emphasises voice commands and gestures, and lets you add various extensions. iLegendSoft's Mercury, meanwhile, includes options such as ad blocking, alternate themes and the ability to download files directly to a Dropbox account.

These diverging approaches among mobile browsers are likely to continue. Safari is the safe middle ground – familiar and easy to use. Coast breaks from tradition with a touch-oriented interface but lacks extensive features. Mercury is deep and complex, but may be more than the average user needs.



It's hard to imagine mobile Safari breaking significantly from what it is today. Assuming that most iOS tablet and phone users just want a browser that's fast, simple and reliable, Safari will continue to meet those needs.

THE TOP FIVE INTERNET THREATS AND HOW TO AVOID THEM

MAC AND iOS USERS DON'T HAVE TO WORRY TOO MUCH ABOUT TRADITIONAL SECURITY THREATS, BUT THAT DOESN'T MEAN WE'RE IMMUNE FROM BAD THINGS HAPPENING TO US. APPLE, MICROSOFT AND OTHERS HAVE MADE GREAT PROGRESS IN IMPROVING THE SECURITY OF OUR MACHINES. BUT MOST REAL-WORLD ATTACKS TODAY TARGET NOT THE DEVICES THEMSELVES BUT RATHER YOU AS A PERSON THROUGH YOUR DEVICES.

IF SUCH MISFORTUNE DOES BEFALL YOU, IT WILL LIKELY TAKE ONE OF THE FOLLOWING FIVE FORMS. HERE'S HOW THESE ATTACKS WORK AND WHAT YOU CAN DO TO AVOID THEM.

BY RICH MOGULL

1. PHISHING

No matter how much you rely on text messaging, social media or chat apps, chances are good that your digital life still centres on email. You use it to buy and sell stuff, recover passwords and receive bills and bank statements. Email is also cheap to send, easy to fake and difficult to ignore.

When an attacker crafts an email designed to seem legitimate but that tricks you into doing something, that's called phishing. The term covers a wide range of deceptions, but all fall into two categories: those that get you to click on a link and unknowingly install malware on your system and those that scam you out of cash or sensitive information such as passwords.

Attackers are endlessly creative, but here are some of the more common (and likely familiar) scams that employ such deceptive approaches:

- a can't-miss international business opportunity – usually a request to help a deposed government official
- a problem with your Amazon, Apple, eBay, PayPal or bank account, often asking you to confirm your account information
- a fake bill, invoice or other document that needs review (and is loaded with malware)
- a message from a friend that doesn't sound like their writing and that includes a link to click, or
- an urgent plea from someone you know but don't talk to frequently who suddenly needs money for car repairs or a speeding ticket.

Spear phishing is when the attacker first learns details about you and then crafts a message to trick just you, instead of blasting it to the internet. Those hacks of major websites where they steal names and email addresses? Attackers use them to target you, not just bank and government employees.

WHAT YOU CAN DO. Your first step is to use an email service that filters spam and blocks known malware. All the major ones, including iCloud and Gmail, do this. Next,

use common sense. Don't open unexpected files even if you recognise the sender. Email or call the person to check first. Don't click on links to access any of your accounts; instead, log in to them with your browser by typing in the website address yourself. Never respond to an unsolicited financial or business offer through email. Seniors are often most at risk.

2. SEARCH SCAMS AND WATERING HOLE ATTACKS

Attackers have learned to game search engines with search engine optimisation (SEO) tricks so that their sites show up in search results and fool you into clicking on links to malicious sites. Attackers now reach masses of web users by targeting common search terms; traps can include searches for how-to guides, recipes and even photos of children's birthday cakes. (A relative of mine fell victim to that last approach.) If your Mac acquired a malware infection that didn't come from email, it probably started this way.

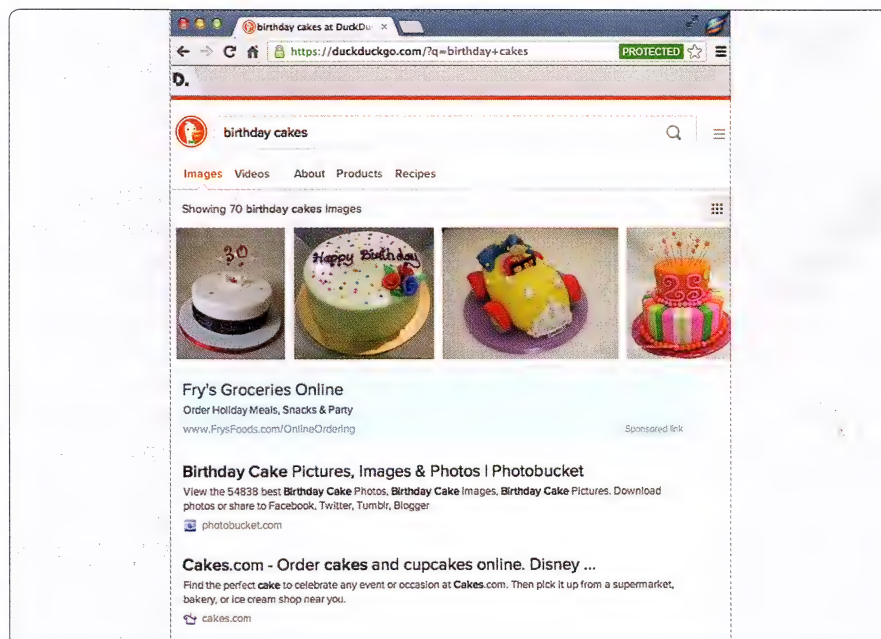
Attackers also compromise common forum and blog software, hiding malware in known sites that lack the security of major providers. Known as watering hole attacks, these traps target specific groups of users.

WHAT YOU CAN DO. Don't assume that links and sites you find through search engines are safe, even if they are popular. Attacks against Macs nearly always require a plug-in, most often Java. For that reason, Apple disables Java in your browser by default, and I recommend that you keep it that way. Adobe Flash is the next-most-likely target, so keep that up-to-date and consider using the ClicktoFlash Safari plug-in (extensions.apple.com), which blocks Flash from running without your permission.

If you're really worried, try the Aviator browser by WhiteHat Security (whitehatsec.com/aviator), which has extensive protections. Turn on OS X's Gatekeeper setting (open System Preferences and choose *General* > *Advanced* > *Allow applications downloaded from*), and think twice before downloading software.

3. ONLINE COMMERCE AND AUCTION FRAUD

My wife purchased a brand-name purse from Amazon Marketplace. It was a decent deal, nothing crazy. But the bad stitching and cheap materials were a dead giveaway that she had been scammed. Fortunately, Amazon covered our costs.





I once tried to buy a jog stroller online. The seller wanted me to buy and use a cash card from a local Walgreens, setting off my professional paranoia.

These and other online commerce scams tend to fall into a few categories:

- stores and auctions selling counterfeit or stolen items, or different goods than those advertised
- stores and auctions that never bother to send the item, and close up shop every few days, and
- eBay and other buyers who don't pay, or who claim the item was damaged or not received.

WHAT YOU CAN DO. Most big auction and commerce sites offer buyer protection, so stick with those sites if possible. If you pay via credit card or PayPal, you are also protected; just make sure to keep good documentation. If you're selling an item, don't send it until payment has been fully processed, which can take an extra three to five days. Never use direct bank transfers – use a credit card instead. Check a buyer's rating, and document and photograph what you pack and ship.

4. ACCOUNT HIJACKING

While relatively rare, one of the most devastating attacks is when someone takes over one or more of your online accounts.

An attacker who pries the accounts open in the right order can assume control of your entire digital life.

Simple account hijackings happen when an attacker guesses your password, or obtains it after a site or your computer has been hacked. More rarely, an attacker targets an individual and even tricks service representatives into resetting accounts or revealing secret data.

Attackers will typically use your account for two reasons: to send phishing email or messages to your contacts or to target your digital life. Lose your primary email login info, for example, and the attacker could control your bank and online commerce accounts.

WHAT YOU CAN DO. Your best defence is to use strong, unique passwords for every site. Apple makes this easy with iCloud Keychain and Safari integration; I also recommend using password-management tools such as 1Password (agilebits.com) or LastPass (lastpass.com). Once you set them up, they are even easier to use than a handful of repeating passwords.

If a site offers two-factor authentication – typically a text message to your phone when you register a new device or browser – use it. If you think you logged in to a site from a compromised computer (yours or someone else's), change your password.

5. SOCIAL-MEDIA PHISHING, CATFISHING AND SCAMS

Phishing isn't confined to email. Try as they might, the major social networks can't keep all the bad guys out. Most of the time the attacker is out to trick you into visiting a tainted site, downloading malicious software or giving up sensitive personal information. In other cases, especially with younger victims, the objective is embarrassment or online harassment – a serious problem, with occasionally deadly consequences.

Social media scams are sometimes tied to an account hijacking or to the compromise of a friend's or a family member's account. A common result is that you receive strange links from people you know.

One really odd development is the catfish attack in which a trickster develops a fake profile and digital life, sometimes to perpetrate an actual crime, but other times just for the 'fun' of tricking someone. Like I said, odd.

WHAT YOU CAN DO. As always, use common sense and be careful what you click on or trust. Follow our recommendations for avoiding phishing, fraud and other attacks. If you experience serious harassment, contact a trusted adult or the authorities. 🐱

MACWORLD LEAD MANAGEMENT

CONTENT STRATEGY



LEAD NURTURING



MARKETING AUTOMATION



SALES QUALIFIED LEADS \$\$\$\$

Using Thunderbolt to connect two Macs

We ran tests to see how Thunderbolt's file-transfer performance compares to that of gigabit Ethernet.
BY JAMES GALBRAITH

Thunderbolt is both fast and flexible. While the original version is capable of bidirectional throughput at 10 gigabits per second (gbps) on each of its dual channels, Thunderbolt 2 can reach a maximum of 20 gbps on a combined channel. The technology can transport PCIe, USB 3.0, FireWire, Mini DisplayPort and gigabit Ethernet data. And that's not all: you can daisy-chain up to six compatible devices on each Thunderbolt port on your Mac. With six available Thunderbolt 2 ports on the new Mac Pro, that adds up to a plethora of peripherals.

In Mavericks, Apple added the ability to create a 10-gbps connection between Macs via IP over Thunderbolt. Considering that Intel is planning to bring the same functionality to Windows computers for the first time, we figured it was as good a time as any to find out just how well Thunderbolt Networking works.

SETTING UP A DIRECT CONNECTION

The setup on a Mac is relatively simple.

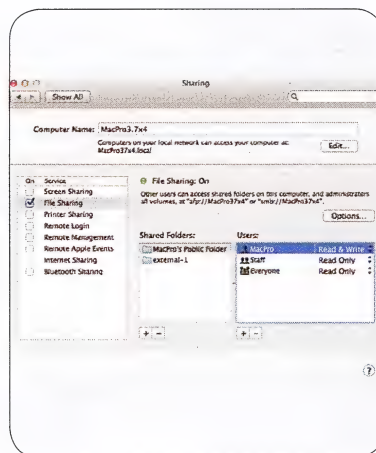
1. Set up file sharing. Arrange for file sharing in *System Preferences* > *Sharing*. Be sure to record the username and password for each system.

2. Connect the two Macs. Attach a Thunderbolt cable linking the two Macs. Open *System Preferences* > *Network* and choose *Thunderbolt Bridge* in the network interface list on the left side of the window. Grab the IP address.

If you click the *Advanced* button, you'll discover a set of tabs with additional options. Under the *Bridge Status* tab, you can see whether your Thunderbolt connection is active.

3. Connect to Server. Go to the Finder and press ⌘-K (or select the menu command *Go* > *Connect to Server*). Enter the connection's IP address in the *Server Address* field and click *Connect*.

A dialogue box will pop up, requesting that you type in the username and password for the shared system. Enter that information, select the volume you want to mount, and click *OK*. If you want to see that mounted volume on the Desktop, go



Ready to share. Before you can enjoy the benefits of Thunderbolt Networking, you have to set up file sharing. While you're in the Sharing preference, remember to write down the username and password for each system.



Sign in, please. Once you've established a Thunderbolt connection, you can log in to the shared system and then choose a volume to mount.



Building bridges. After you've hooked up a Thunderbolt cable between the Macs you wish to network, you can view the status of your connection and access options.

to *Finder > Preferences* and enable the *Connected Servers* checkbox in the General menu.

BENCHMARK TESTS

When we tested two new Mac Pros over a gigabit network connection linked by a standard Ethernet cable, we noted write and read speeds of just below 100 MBps for a 10GB file. When we copied a set of smaller files and folders, we recorded a write speed of 64 MBps and a read speed of 78 MBps.

The file-transfer speed increased when we disconnected Ethernet and used IP over Thunderbolt. The speeds for our 10GB file jumped to 241 MBps (write) and 390 MBps (read). The results of our files-and-folders test were less impressive, with the Thunderbolt connection reaching a write speed of 133 MBps and a read speed of 243 MBps, but even so the scores were faster than those of gigabit Ethernet.

Next we connected a LaCie Little Big Disk Thunderbolt (with two 512GB SSDs in a striped array) to one of the Mac Pros and enabled file sharing on a volume on that drive. With the IP-over-Thunderbolt connection still in place, we mounted the shared LaCie volume on the other Mac Pro and ran our suite of tests again.


The results weren't as fast as when we tested with a folder residing on the Mac Pros, but the differences were slim. With our 10GB file, the write speed was about six percent slower on the external drive share, while reads were about 12 percent slower. Writing our set of files and folders was about 25 percent slower in this external-share arrangement than working with a shared folder stored on one of the Mac Pros and reading the files and folders was a little more than 10 percent slower on the external share.

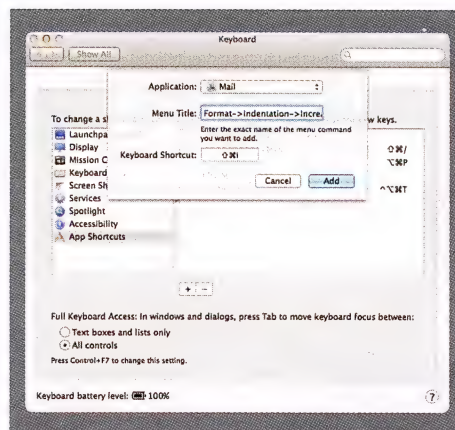
Of course, you can always copy files from one Thunderbolt-equipped

The file-transfer speed increased when we disconnected Ethernet and used IP over Thunderbolt.

Mac to another by using Target Disk Mode. When we ran our tests under that setup, all of the results were faster than the IP-over-Thunderbolt transfer speeds. The 10GB-file writes and reads were about seven percent faster. On the files-and-folders write test, results were 83 percent faster, while the read test results were 21 percent faster. The downside of this configuration is that you have to boot one of the computers into Target Disk Mode, making it essentially an external drive and thus unusable as a computer for the duration.

In our final test, we connected the LaCie storage device to a Mac Pro directly over Thunderbolt and ran the benchmark suite again. This configuration was by far the fastest we tested. The 10GB-file write speeds were nearly double those of the closest configuration, the Thunderbolt Target Disk Mode. The 10GB-file read speeds were 55 percent faster than those posted in Target Disk Mode. The files-and-folders results were 59 percent faster (write) and 77 percent faster (read).

Using a Thunderbolt network may not be as fast as using a directly attached Thunderbolt drive, but if you are thinking of sharing files via the latter method you should take into account the number of steps it requires. You have to write the data to a drive, disconnect that drive, attach it to another Mac and then copy the files from the drive onto the second Mac. Using a Thunderbolt network is certainly faster than using gigabit Ethernet, at least. 



Create shortcuts for redundant menu commands

You probably know that you can assign keyboard shortcuts to menu commands in the Keyboard pane of System Preferences: Just open the Shortcuts tab, select *App Shortcuts* in the list on the left, click the add (+) button underneath, choose the app, type in the command exactly as it appears in that app's menu and assign it the shortcut you want.

But you can run into difficulties if more than one menu item in the app happens to have the same name. (Mail includes both *Format > Indentation > Increase* and *Format > Quote Level > Increase*, for example.) Fortunately, there's a simple solution. If you describe the full menu path using -> (a hyphen and an angle bracket) as the delimiter between items (no spaces), then OS X will select the correct menu item (see above).

For instance, you might type *Format->Indentation->Increase* in the field. (In old versions of OS X, you could use > on its own; but Mavericks and Mountain Lion expect ->.)

— DAN MILLER

Tech tricks for planning meetings

Here are three techniques that can make setting up your meetings a little easier. BY DAVID SPARKS

Doodle CREATE DOODLE ACCOUNT | SIGN IN

Schedule an event

1. General ▶ 2. Time proposals ▶ 3. Settings ▶ 4. Invite

Times

Enter any number of time proposals for each day. If you do not enter an actual time span, the proposed date is shown as all-day.

Switch on time-zone support ▼

| | Time 1 | Time 2 | Time 3 |
|--------------|----------|----------|----------|
| Tue, 3/25/14 | 10:00 AM | 10:00 AM | 10:00 AM |
| Wed, 3/26/14 | 11:00 AM | 1:00 PM | 2:00 PM |
| Thu, 3/27/14 | 1:00 PM | 3:00 PM | 4:00 PM |

Add further time slots
Copy and paste first row

Back Next

On schedule. The Doodle online service helps all members of a group find a mutually agreeable meeting time.

message can reduce subsequent email traffic. In my experience, most people accept the proposed meeting in their first reply.

Another trick is to save a proposed meeting time as soon as you send out the first email message, so you won't be tempted to schedule another meeting at the same time while waiting to hear back from the person you approached earlier. To indicate hypothetical meeting times, I put a question mark in front of the event name, so when I check my calendar later, I'll know which events are booked and which are still only hypothetical. If the other person writes back and accepts, I remove the question mark; if the person declines, I delete the event.

USE A WEB SERVICE TO SET UP A BIG MEETING

Try to set up a meeting for six people and you'll receive an endless stream of messages vetoing schedule suggestions because of various conflicts.

Instead, let a meeting-planning site do the job for you. My favourite, Doodle.com, lets the meeting organiser set several potential blocks of time aside for a meeting. Doodle then either sends email messages to the prospective participants or provides you with a link that you can send out yourself. The meeting participants can then log on to Doodle and identify the blocks of time when they are available. Once everyone has completed this task, the organiser will know exactly when everyone is available.

This arrangement works so well that I sometimes set up Doodle events for other people's meetings when I'm an invitee, just to avoid the grief. ☹

Despite all the technology at our fingertips, the tasks of scheduling and planning meetings are a pain. You can use your Mac, your iPhone and the web to make the process go more smoothly.

AUTOMATE CONFIRMATION

When people schedule meetings far in advance, changes in plans or forgetfulness can cause problems – so send out meeting confirmations on the day before the meeting. Each day, check the next day's scheduled meetings and send out email reminders to all of the participants.

To automate this process, use a fill-in TextExpander snippet. For

instance, when I type 'meeting confirm' in an email window, TextExpander creates a custom email message that lets me fill in the recipient's name, the agenda and the anticipated length of the meeting.

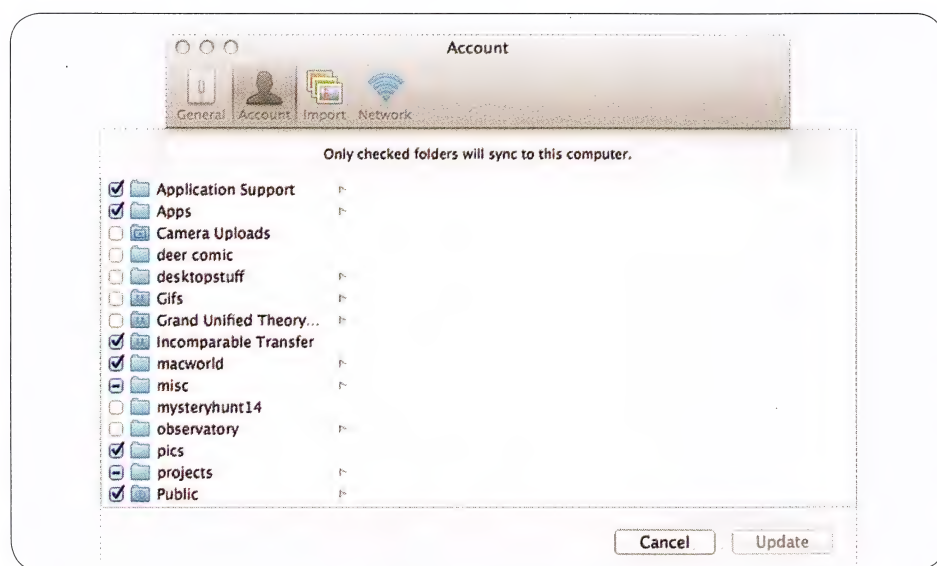
RESERVE MEETING TIMES

Finding a mutually convenient time to meet with someone can be an exercise in frustration. Instead of taking turns suggesting available times, try writing an email message along the lines of "Let's have lunch together. How about Wednesday at Cardiac's House of Cheese at 11:45 am?" Putting the idea of lunch with the relevant details in the first

MacBook in the Cloud

Work with the same files on multiple Macs.

By JOE KISSELL



Keeping your data and software in sync when you have more than one Mac poses quite a challenge. Apple's iCloud service offers some sync capabilities for passwords and user account data, but it doesn't widely support app data. When you get a new computer, you either have to clone the old drive to the new system or copy non-Mac App Store applications. Also, a Mac laptop has much less storage than its desktop Mac cousins. But you can make your laptop into the perfect satellite computer with just a few tweaks – and conserve its hard drive space. Here are some tips for syncing your computers with the cloud.

SYNC SELECTIVELY

Your Dropbox folder lets you store files inside it on one computer and have them appear instantly in that folder on a second system; you can also

access them on the web. And with a paid account, you can sync up to 500GB of stuff.

I pay for a 100GB plan, but I don't want my entire Dropbox on my laptop. The service's Selective Sync option lets me choose specific subfolders to sync from Dropbox on a given system.

To turn on Selective Sync, go to Dropbox's menu bar icon on your Mac, click the Settings gear icon and choose *Preferences*. Then select the *Account* tab and, under Selective Sync, click *Change Settings*. You can sync entire top-level Dropbox folders, or you can choose subfolders in Dropbox without having to download the folder that contains them. To do the latter, switch to *Advanced View*.

KEEP YOUR APPS IN TUNE

Dropbox is good for a lot more than just saving static files – some apps, like BBEdit, let you sync application support files within the folder. The

key to this resides in your computer's Application Support folder, hidden within `~/Library`. Your programs use information from that folder to save your preferences, load unsaved data and more. To sync this information, drag an app's support folder from `~/Library/Application Support` to a new Application Support folder in Dropbox.

Other apps provide Dropbox sync support, as well: AgileBits' 1Password offers a Dropbox sync button directly within the application, while launch manager Alfred can store a single preference file on the service.

MACBOOK AIR, PHONE HOME

These Dropbox tricks work fairly well to keep a MacBook in sync, but some- times you need to return to the source. With Back to My Mac, you can access your iMac from your laptop, no matter how far apart the two machines are. When you open a new window on your desktop, any awake and online computers linked to your iCloud account should appear under the Shared pane.

In case Back to My Mac balks, you can set up backup options. Edovia's Screens software for Mac and iOS (edovia.com) has become my go-to program when Back to My Mac fails, and it's an excellent client. I originally bought the mobile version for my iPhone and iPad, but I've started using Screens more often on my desktop, too.

Whatever your screen-sharing program of choice, Screens is an excellent last-ditch option for tasks you can't quite accomplish on your laptop. ☒

Pick and choose. Selective Sync lets you decide which Dropbox folders to put on your computer.

YOU CAN ASK THE **MACWORLD AUSTRALIA** TEAM ANY MAC- OR APPLE-RELATED QUESTIONS BY EMAILING EDITOR@MACWORLD.COM.AU. ANSWERS THIS MONTH BY CHRISTOPHER BREEN AND DAN MILLER.

STM READER TIP

Apple TV woes - when your Apple TV can't see your iTunes library

I've spent a considerable part of the day today wondering why all of a sudden neither of our Apple TVs could see our iTunes library on a Windows 8 PC. We have two libraries: one on a Mac and one on a PC; both Apple TVs can see the one on the Mac, but not the larger one on the Windows 8 PC.

The latter contains a large number of movies, TV series and home videos (we use this machine due to it having a large amount of disk space and the issues we've had with external USB drives on the Mac for storing iTunes libraries).

After a lot of research, trying various firewall settings, disabling antivirus programs, disabling firewalls and banging my head against the wall in frustration, I finally found the solution.

If IPv6 is enabled on the Windows machine, the Apple TVs are unable to see the iTunes library.

To disable IPv6 on a Windows 8 machine, use the following process:

Open the *Control Panel* > choose *Network and Internet* > choose 'View Network Status and Tasks', which is directly underneath 'Network and Sharing Centre'. Click on your connection, which will most likely be 'Ethernet' if connected by a cable or 'Wireless' if connected via Wi-Fi.

Click the *Properties* button and uncheck the box beside *Internet Protocol Version 6 (TCP/IPv6)*. Click *OK*, then click *close*.

You should now be able to see your PC hosted iTunes library from your Apple TV (you may have to restart iTunes).

Jamie Dobbs

EACH MONTH, STM gives a prize to the *Macworld Australia* reader who submits the best and most useful tip (undocumented tips preferred). This month's prize is a comfortable and portable STM drifter laptop backpack worth \$169.95.

This drifter pack is easy to wear, features pockets in all the right places and comfortable to boot. A hint of retro design, yet space for all the daily tech needs. There's room for work docs, gym gear, lunch, umbrella and waterbottles.

Features:

- top load main compartment reveals a padded laptop cell (will hold most 14-16in laptops)
- plenty of main compartment capacity for books, shoes and clothing,
- slip tablet pocket with cord and battery storage
- side water bottle pockets with compression straps
- padded shoulder straps with stabilising sternum strap
- 3D foam mesh back panel with air-flow channel, and
- integrated luggage pass through secures the bag to the handle of your wheeled luggage.

www.stmbags.com.au

? IMPORT OUTLOOK MESSAGE ARCHIVES TO MAIL

I'm going to help a family member move from a PC over to a new Mac. How can we convert Outlook .pst email archives to a format that's compatible with Apple's Mail? **Lowell Brown**

I'll start by pointing out that if your relative's messages are all stored in an IMAP email account, you can simply set up that account on the Mac and the messages will appear within Mail. If you're talking about an archive of messages, however, you'll have to deal with Microsoft's PST (Personal Storage Table) file format, which Apple's Mail can't deal with directly – and therefore you'll have to convert them.

You can do this in a couple of ways. If you have a copy of Outlook for Mac, launch it, choose *File* > *Import*, select *Outlook Data File (.pst or .olm)* in the first Import window, click the *Next* button, select *Outlook for Windows Data File (.pst)*, click *Next* again, navigate to the .pst file that you've copied to your Mac, select it, and click *Import*. Outlook will import those messages and file them under the On



My Computer heading. Drag the folder that contains all of these messages to the desktop, and it will become an mbox file that you can import into Mail.

If you don't have a copy of Outlook for Mac, you can set up a trial account on Microsoft Office 365, which gives you 30 days of Office for nothing. After you've converted your files, it's entirely up to you whether to hang on to Office and pay the \$12-per-month subscription price when your trial period ends.

Alternatively, you can employ a dedicated utility such as Gladweb's \$31.99 PST Converter Pro (www.outlooktomail.com). The app couldn't be much easier to operate. Just select the .pst file you've exported from Outlook on the PC, choose the content type you want to convert (mail, contacts, calendars), select the output format (mbox or eml for mail messages) and click *Start*. The tool will convert the messages into a form that you can then import into Mail. Personally, I'd choose mbox.

Now launch Mail, choose *File > Import Mailboxes*, select *File in mbox format* in the resulting window, click *Continue*, navigate to the exported mbox file and click *Choose*. Mail will proceed to import the messages; after it's done you can find them under the On My Mac heading within an Import folder.

? SLIM DOWN YOUR SSD WITH SYMBOLIC LINKS

I recently replaced the media drive in my MacBook Pro with a solid-state drive, leaving the original hard drive in place to hold other things. The problem I face now is that my SSD fills up quickly. Is there a way I can better manage my system's storage so that files reside by default on the old hard drive rather than on the SSD?

Josh Gillam

I have a couple of solutions. First, if you discover that iPhoto and iTunes are consuming a lot of the storage, you can simply shift their files over to

TIP: APPLY FINDER TAGS WITH A KEYBOARD SHORTCUT

OS X Mavericks added the ability to apply tags to files and folders in the Finder. What it didn't add was a convenient way to apply those tags via the keyboard – but you can easily set up a custom keyboard shortcut to open the tagging interface.

The basic process will be familiar to anyone who has read this section for any amount of time. First, go to *System Preferences > Keyboard*, open the *Shortcuts* tab, select *App Shortcuts* from the list on the left, and click the plus (+) button. In the window that appears, set the Application to *Finder*, and enter *Tags...* for the Menu Title. (You can type an actual ellipsis character by pressing Option-; [semicolon] or just type three periods.) Then you set your preferred keyboard shortcut, such as ⌘-Option-T.

Afterward you can assign a tag in one of two ways. First, you can use the arrow keys to navigate up and down the tag list, and then press Return to apply one. Or you can invoke the tags pop-up with your assigned hotkey and then type the first letters of the label or tag you want; OS X will autocomplete it. Just press Return to select the tag and Return again to apply it.



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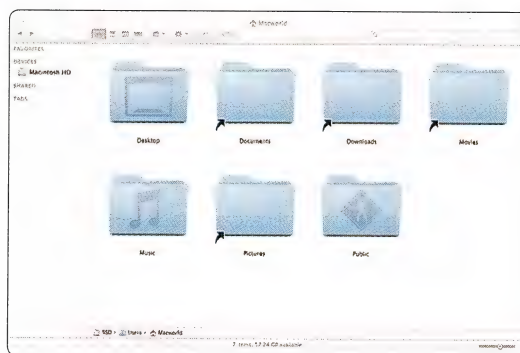
the old hard drive and then point the apps to look there for their resources.

For iPhoto, copy the iPhoto Library archive from *youruserfolder/Pictures* to the old hard drive (exactly where you copy it isn't important). Then launch iPhoto while holding down the Option key. The iPhoto window that appears will list any iPhoto Library archives you have as well as the path to the currently selected archive. Select the archive you moved and click *Choose*. (If you don't see that archive in the list, click *Other Library*, navigate to it and click *Open*.) You can now delete the original iPhoto Library archive. Whenever you work with iPhoto, it will load and save images using this iPhoto Library archive.

Working with iTunes is less straightforward, as you have to adjust some settings within that application's preferences in order to move your media folder. Apple shows you the way at bit.ly/Tq2A3a.

The other approach you might consider involves moving some folders within your user folder to the old hard drive and then creating *symbolic links* to them. The idea is that you're directing any app that wants access to certain folders – such as Documents, Pictures, Movies and Downloads – to copies you've created on the old hard drive. This can't happen until you create links that tell the operating system, 'Look over there for the folders you want.' Doing so requires some folder copying and the tiniest bit of Terminal work.

Before getting started with the link creation, think about which folders you want to place on the old hard drive. The advantage of a solid-state drive is that it accesses files very quickly, so you want to keep your most frequently accessed files on the faster drive. For this reason I suggest moving to the hard drive any folders containing large files that you don't use all that often – in my case, I would move the Pictures, Music and Downloads folders. I would definitely keep the hidden Library



Point the way. Use symbolic links to instruct your apps to find folders stored on a different drive.

folder on the SSD, as it contains lots of little files that the OS touches constantly.

Copy the folders that you want to shift over to the old hard drive. You needn't put them in any particular place. I've created a folder at the root level of my old hard drive, named it 'My Home Folders', and then moved the folders into it. Now, to Terminal.

Within Terminal enter `cd` and then enter the location of your home folder on the SSD. The easy way to accomplish this is to type `cd` followed by a space, and then simply drag your home folder into the Terminal window. Press Return, and Terminal will list the name of your home folder followed by a prompt (`chris$`, in my case).

Now type `sudo rm -rf` and a space, followed by the name of the folder you want to delete. To delete the Downloads folder, for example, you would enter `sudo rm -rf Downloads` and then press Return. Enter your password when prompted, press Return again, and the folder will be deleted. Repeat this process for each folder you wish to delete (again, after

checking to confirm that you have made copies of their contents on the old hard drive).

You must now create links pointing to the folders that you just moved to your old hard drive. You can do so by typing `ln -s`, entering a space, and then dragging in the folder on your old hard drive to which you want to create the link. In our example I would type `ln -s` and then drag into the Terminal window the Downloads folder from the My Home Folders folder I created on my old hard drive. When you press the Return key, the link to the folder is created within the home folder on the solid-state drive – and with that, your links are set up properly.

When you delete those folders from the SSD's home folder, they will disappear from Finder windows' sidebars, too. You can put them back (minus the custom icons, which you also lose in this process) by navigating to the original folders on the old hard drive and dragging those copies into the sidebar.

? SHARE iWORK '13 FILES WITH iOS DEVICES

I use Google Drive to share files with friends and colleagues. I recently started using the latest versions of iWork on both my Mac and my iPad, and I've heard that other people can't open my

TIP: ADD MULTIPLE URLS TO A CALENDAR EVENT

Adding URLs to events in Calendar can be handy – you might do so for sites you want to review before an appointment, perhaps, or for sites you'll want to demo during an event. Whatever the reason, it's simple to add a single URL. The event editor includes a dedicated URL field just for that purpose.

But what if you want to add multiple URLs? It pays to remember an old editing trick: in many such fields you can press Option-Return to enter a line break. So after you enter your first URL in the field, press Option-Return to create a second line; then enter the second URL. Repeat as necessary.



Keynote presentations on their iOS devices, as these appear as a folder rather than as a file. How do people manage to share such files?
Nathan Bach

The latest versions of Pages, Numbers and Keynote save documents as packages rather than as a single file, and that approach causes problems with cloud-based services such as Google Drive. You have a couple of options for dealing with them.

The first alternative involves having you or your colleagues open these files in a different app, such as Good.iWare's \$6.49 GoodReader or Readdle's free Documents 5. Both of these apps support the major cloud services – Box, Dropbox, Google Drive, OneDrive and SugarSync.

In the particular case of an iWork '13 file saved to Google Drive, your colleagues can download the folder that represents the document, and the 'folder' will convert to a document that they can then open in the appropriate iWork app on their iPads.

Unfortunately, you don't get the same result with all cloud services: Box.com, for example, refuses to sync an iWork '13 file. In that case you have to compress the file and then sync it. You can do so directly within the iWork app – check the File menu of your iWork apps, and you'll find an Export command that offers the option to export the file as a .zip archive.

If you want to compress a file after the fact, you can Control-click (right-click) the iWork file in question, choose *Compress [name of file]* from

the resulting menu, and then move the archive into your syncing folder. Or, like me, you can create a simple Automator application that contains the single Create Archive action, pointing to your sync folder. When it's time to sync an iWork file, just drag the file atop this application to compress the item and move it to your sync folder.

The compressed file will then be available to your colleagues' iPads. However, some of the host applications for your syncing services may not be able to do anything with such archives, as they can't unzip them. Again, turn to GoodReader or Documents 5, as either utility will unzip the archives. Afterward your colleagues can use either app's Open In command to open the files in the appropriate iWork app. ☒

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Uninterruptible power supply (UPS) devices

Worried about your power supply? ADAM TURNER has four options to keep your hardware and work safe.

PowerShield Defender 1600VA UPS

This PowerShield is rated at 1600VA and features a 10-amp circuit breaker (some UPSs offer 15 amps, but keep in mind your typical wall socket is only rated for 10 amps). You'll find six standard Australian power points on the back, which is easier than dealing with computer-style C13 power sockets and may save you money on extra cables. All six offer surge protection, but only three offer battery backup.

The front screen reveals the input voltage from your power point and the output voltage going to your attached devices. There are also four-bar readouts for the battery charge level and the power load from the attached devices. You can connect the PowerShield to your computer via USB, with management software for Windows, Mac and Linux. The UPS doesn't show up under the Energy Saver System Preferences on your Mac.

There's no fan in the PowerShield, so it sits quietly under your desk, although the box does make a loud buzz while running on the battery.

The watts rating is usually 60 percent of the VA rating on a UPS designed for workstations, meaning this PowerShield is designed to supply 960 watts.

Tested with our quad-core Mac Pro hooked up to a 24in Dell monitor, using 210 watts, the PowerShield ran 21 minutes and 58 seconds – the longest run time of the bunch, but the lowest efficiency at 0.82 seconds per VA. Considering the price, it's still the best value for money.



Bottom line. Running quietly and well-priced, PowerShield's Defender 1600VA is the pick of the bunch.



\$299 / POWERSHIELD
www.powershield.com.au

PROS Quiet; Australian power sockets **CONS** Lowest efficiency

HP UPS T750 G2



This HP is rated at 750VA and features a 10-amp circuit breaker.

You'll find four power connectors on the back, the C13 sockets typically found on computing gear rather than standard power points. Every socket offers battery backup and surge protection to filter out power spikes, with two power cables in the box. You'll also find Ethernet jacks to filter out spikes on your network cables.

There's no readout on the front, just power, battery, load and service lights. HP compensates by offering the advanced administration tools, with the ability to connect to a computer via USB or serial port. Advanced features include schedule power-on and power-off to the UPS and attached equipment, prioritised shutdown and a hot-swappable battery.

Unfortunately, HP doesn't supply Mac management software, only Windows, although the UPS does show up under the Energy Saver System Preferences on your Mac.

The HP features a quiet fan, which ramps up when the power is cut.

Tested with a quad-core Mac Pro hooked up to a 24in Dell monitor, using 210 watts, the HP ran for 14 minutes and 50 seconds – offering the shortest runtime of the bunch, but the best efficiency at 1.18 seconds per VA.

While a 750VA UPS should be enough to handle a desktop computer and monitor, don't skimp on the VA rating if you're looking to power extra devices. If the UPS is underrated for the power load, then it may fail to keep your computer and other devices running when the power is cut.

Bottom line. Expensive, but sporting the lowest capacity battery, the HP doesn't offer great value for home/small office, home office (SOHO) users.



\$449 / HP
www.hp.com

PROS Highest efficiency **CONS** No readout; no Mac software



OUTSTANDING



VERY GOOD



GOOD



FLAWED



UNACCEPTABLE

57

AUGUST 2014
www.macworld.com.au

Belkin Line Interactive 1400 VA UPS

This Belkin is rated at 1400VA and includes a 15-amp circuit breaker. You'll find six power connectors on the back – using the C13 sockets typically found on computing gear, rather than standard power points. Belkin includes two power cables.

All six sockets offer surge protection to shield your gear from power spikes, but only four offer battery backup. You'll also find telephone jacks to filter out spikes on your phone line.

On the front of the Belkin, you'll find a screen, which displays the input voltage coming from your power point and the output voltage going to your attached devices. There are also four-bar readouts for the battery charge level and the power load from the attached devices. You can connect the UPS up to your computer via USB and Belkin supplies Mac and Windows software, but the UPS doesn't show up under the Energy Saver System Preferences on your Mac.

The Belkin features a very noisy fan, which often kicks in even when the UPS isn't providing battery backup, so you wouldn't want to sit near it all day. When running on batteries it makes a loud beep every few seconds, which gets faster when it's down to 25 percent charge.

Tested with our quad-core Mac Pro hooked up to a 24in Dell monitor, using 210 watts, the Belkin ran 19 minutes and 55 seconds – which works out at .85 seconds per VA. The Mac was sitting idle with no power-saving options enabled, so you might stretch this further; however, power-hungry applications will take their toll.

Keep in mind the primary purpose of a battery-powered UPS isn't to let you keep working, but rather to finish what you're doing and shut down gracefully.

Bottom line. While the price is low, Belkin's UPS is simply too noisy for home/SOHO users.



\$299 / BELKIN

www.belkin.com/au

PROS Low price CONS Noisy

APC Back-UPS Pro 1200

This APC is rated at 1200VA and features a 10-amp circuit breaker. You'll find eight power connectors on the back – the most generous of the bunch – using the C13 sockets typically found on computing gear rather than standard power points. APC includes two power cables. Every socket offers surge protection to filter out power spikes, but only four sockets offer battery backup.

One of these battery backup sockets acts as a master, controlling the second battery backup socket along with three of the surge-protected sockets. When the master device (presumably your computer) is shut down, the UPS cuts the power to the slave devices.


You'll also find telephone and Ethernet jacks on the back to filter out spikes on your phone line and data cables.

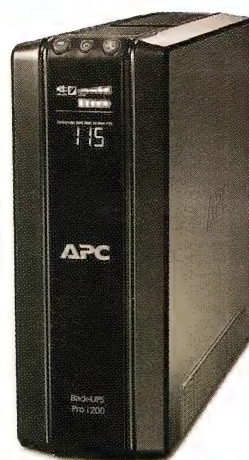
The APC's front screen offers five-bar readouts for the battery charge level and the power load from the attached devices. Below this is an option button that lets you toggle through the input and output voltages, power frequency, the remaining time, the watts used by attached devices, the power load percentage and the remaining battery time.

You can connect this UPS to your computer via USB although APC doesn't supply a Mac version of its PowerChute management software. The UPS does show up under the Energy Saver System Preferences on your Mac.

The UPS features a very quiet fan, but it ramps up when the power is cut. It emits four quick beeps every 30 seconds, with a rapid beep when there's less than 60 seconds of charge left. Thankfully there's a mute button.

Tested with a quad-core Mac Pro hooked up to a 24in Dell monitor, using 210 watts, the APC ran for 18 minutes and 50 seconds – offering an efficiency of 0.94 seconds per VA.

Bottom line. Plenty of sockets and a detailed readout make the APC a handy addition to a busy workspace. 



\$459 / APC

www.apc.com

PROS Most power sockets; best readout CONS Expensive

Apple 21.5in iMac (mid-2014)

Apple's new iMac offers a lower price but significantly lower performance.

While I tend to focus on system performance when recommending (or not recommending) computers for purchase, the truth is, however, that many people buy computers based largely on price. Apple has these budget-minded buyers in mind with its latest, lower-priced iMac.

Until recently, the standard iMac lineup included two 27in models and two 21.5in models. With this latest release, a third 21.5in iMac joins the team. Priced at just \$1349 – \$250 less than the previous low-end iMac – this new system is externally identical to the rest of the 21.5in iMacs, as well as those released in October of 2012. It has the same 5mm thin-edged design, the same glossy 1920 x 1080 IPS screen, the same four USB 3.0 ports, gigabit Ethernet, two Thunderbolt ports, headphone jack and SDXC card slots.

The trade-off for those super-thin edges is that there is no room on the side for peripheral ports, much less an optical drive. I would personally prefer to have the convenience of front or side peripheral ports than I would that razor-thin edge – especially because this is a desktop machine.

Under the hood, the price-versus-power choices become apparent. In fact, the new low-end iMac's internal specifications have more in common with the latest MacBook Airs than with the rest of the iMac family. Where the \$1599 iMac has a quad-core 2.7GHz Core i5 processor, the \$1349 iMac has a dual-core 1.4GHz Core i5 processor.

The \$1599 model has a 1TB, 5400 RPM hard drive, while the \$1349 iMac has a 500GB hard drive of the same rotational speed. The \$1599 iMac also has faster Intel Iris Pro integrated graphics than the new low-end's Intel HD Graphics 5000.

Configuration options are also really limited on the new low-end system. There is no incremental processor upgrade, no graphics upgrade and no RAM upgrades available. The other iMacs in the line can be upgraded to 16GB at the time of purchase.

DIYers hoping to save a few bucks by going through the hassle of installing their own RAM are out of luck with the new \$1349 iMac: Apple is using LPDDR3 RAM that is soldered to the motherboard. The RAM on the other 21.5in models may be hard to access, but it's doable if you're tenacious, and if you do you'll find two standard DDR3 DIMM slots.


You can upgrade from the standard 500GB hard drive to 1TB drive for an extra \$60; an extra \$300 will get you either 256GB of flash storage or a 1TB Fusion drive, which combines a 1TB hard drive with 128GB of flash storage.

There is now a wide performance gap between the low-end iMac and the next step up the product line. The new \$1349 iMac was slower across the board, and 54 percent slower overall, than the \$1599 21.5in system. One thing to note: we weren't crazy about the \$1599 model when it



shipped. It offered just modest speed improvements over the October 2012 system and most of that was due to the \$1599 iMac's use of Iris Pro graphics – which are not included in the new \$1349 system.

Bottom line. The price of buying an iMac just went down. The big question: is a 15 percent lower price worth 50 percent lower performance? For people who buy Macs for their ease of use, stylish design and seamless integration with iOS devices, this less expensive model offers all of that; it will also run most modern applications just fine.

If you can swing it, however, the \$1599 has double the processing cores running at nearly double the clock speed and twice the storage capacity of this new low-end iMac. 

– JAMES GALBRAITH



\$1349 / APPLE

www.apple.com/au

PROS Lower price; integrated IPS LED screen; eye-catching design

CONS Non-upgradable RAM; slow, limited capacity 5400RPM drive; only iMac without four processing cores



Canon Pixma Pro-10

Aimed at pros and enthusiasts who want to produce photo prints, the Canon Pixma Pro-10 is big and heavy – weighing 20kg and measuring 68.9 x 38.5 x 21.5cm.

The installer on the CD said the software was incompatible with Mavericks, and suggested going to Canon's website for the latest versions – but I had to figure out what I needed when I got there. Then, setting up Wi-Fi printing yielded an error, as nothing had indicated that the printer must be connected via USB during setup.

I used Canon papers, as well as third-party papers and ICC profiles. Test output was outstanding. When I printed from a calibrated iMac, the colour fidelity, brilliance and saturation were superb. Even viewed under a magnifying glass, fine detail and tonal gradations looked natural, without banding or pixelation.


Thanks in part to two black inks, a grey ink and a 'chroma optimiser,' the Pro-10's black-and-white prints were the best I've ever made, with deep, true blacks and subtle greys. Colour prints occasionally seemed a

bit darker than output from Canon's Pro-100 and Pro9000 Mark II, but that isn't necessarily a drawback.

In many ways, the Pro-10 is identical to the less expensive Pro-100. The Pro-10, however, employs 10 pigment inks, whereas the Pro-100 uses eight dye inks.

Because of their chemical composition, pigment inks are generally less vivid than dye inks. Pigment inks last longer without fading than dye inks do, but good dye inks like those of the Pro-100 are expected to hold their colour for a century or more already.

Mostly I found it hard to tell the difference between prints from the Pro-10 and those from the Pro-100. But although this printer lists for a few hundred dollars more than the Pro-100 – the approximate cost of two complete ink-cartridge replacements.

Bottom line. If you're on a budget, get the superb Pro-100 – but if you can afford it, buy the especially superb Pro-10. 

– WILLIAM PORTER



CANON
www.canon.com.au

PROS Outstanding print quality with pigment inks; bundled Print Studio Pro software's Pro Mode makes expert colour management easier than ever; Wi-Fi, Ethernet and USB connectivity

CONS Initial software installation process can be confusing; print Studio Pro printing app doesn't work with Aperture

\$999

G-Technology G-Drive Pro with Thunderbolt

Thunderbolt-equipped storage device features four 2.5in 7200-rpm drives.

The G-Drive Pro with Thunderbolt by G-Technology is not very big, especially for being a four-drive RAID; it's just over a centimetre taller than the company's G-Drive. Does weight and size really matter when it comes to desktop drives?

The aluminium enclosure is much like other G-Technology drives, sporting perforated front and side panels that complement legacy Mac Pros design. Inside the enclosure, things are quite different. Unlike the G-Drive, which has a single 3.5in drive, the G-Drive Pro with Thunderbolt has four 2.5in drives configured in a hardware RAID 0.

While four-drive RAID setups aren't uncommon, they often feature drive mechanisms you can replace without tools. The G-Drive Pro goes in a different direction: opening the enclosure voids your warranty, and you need both a Philips-head and T8 security torx driver to replace the drives. You can't even change the RAID configuration to a mirrored or JBOD setup.

The four independent 7200-rpm drives working together give the G-Drive Pro with Thunderbolt a nice boost in speed, while still providing a healthy 4TB capacity. Our tests showed the drive performs about three times as fast as an average 2.5in 7200-rpm drive on its own. However, the G-Drive Pro lagged behind competing RAID enclosures that use four 3.5in 7200-rpm drives.

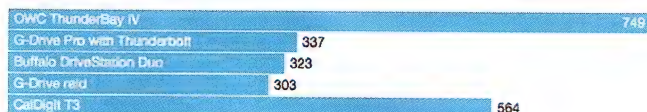
We did run into something unusual during our testing. After sitting idle for a while, the G-Drive Pro with Thunderbolt would take longer than we expected to become responsive. After 15 minutes of idle time, it took the drive more than a minute to get to a ready state.

Bottom line. You're paying a premium, both in terms of cash and speed, for a smaller and lighter than average desktop RAID. Some may choose to sacrifice raw speed for a bit of added portability, even considering that the G-Drive Pro with Thunderbolt is a desktop storage device and requires external power.

— ALBERT FILICE

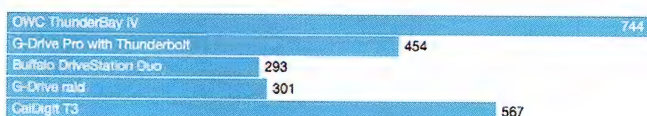


Write File



Results are in MBps; larger numbers/longer bars are better.

Read File



Results are in MBps; larger numbers/longer bars are better.



G-TECHNOLOGY

www.g-technology.com

PROS Smaller and lighter than other four-drive RAID's; dual Thunderbolt ports for Daisy Chaining

CONS Lacklustre performance; the enclosure isn't user serviceable; slow to wake from an idle state

\$799.95 (2TB); \$999 (4TB)



Diablo III: Reaper of Souls

Released two years ago, *Diablo III* disappointed fans and critics because it failed to push the action-RPG genre in new directions; it simply kept to its formula very well.

Blizzard's expansion pack, *Diablo III: Reaper of Souls*, is similarly solid and not spectacular, but it checks all of the boxes on the expansion wish list. It also serves as a patch.

Gone are tiered health potions, Normal/Nightmare/Hell/Inferno modes, and the randomised loot system. In their place are health potions that work for all classes, enemies that scale with your level (higher tiers are more challenging), and Loot 2.0, which raises the likelihood that you'll get better, more useful gear. These revamps streamline the game. You'll also find a new nonplayer character, the mystic, who lets you remix weapon skills or change an item's appearance.

The new act took me a few hours to burn through. Some of the new areas have great set pieces.

Reaper of Souls also has a new class, the Crusader, which occupies a tank role with crowd-control and toughness bonuses.

Another major addition is Adventure Mode. Unlocked after the campaign, the mode tasks you with collecting bounties. It offers good, short bursts of action, and completed bounties earn you coin and experience.

Blizzard has been good in the past about patching launch issues, but the version I've been playing has a great deal of bugs and issues to address. The game crashes during loading and some of the loot drops are infuriating – craftable items that require hundreds of materials to make and common white items (you'll likely dispose of) are often bizarrely not labelled as crafting materials – creating some

needless headaches. In other words, the item crafting system has become much more robust, but a lot more unwieldy.

Bottom line. *Diablo III: Reaper of Souls* isn't likely to attract new players to the *Diablo* universe, but it has plenty for dungeon crawler fans out there who want another excuse to level grind, loot and explore. Hate the genre all you want, there's no denying its addictive qualities.

– CHRIS HOLT



BLIZZARD ENTERTAINMENT
www.blizzard.com

PROS Adventure mode; plot expansion

CONS Few bugs yet to be patched

\$49.95 (STANDARD EDITION);

\$64.95 (DELUXE EDITION)



LaCie Rugged Thunderbolt

The improvements over the last generation of LaCie's Rugged drives are more than welcome and a well-designed captive Thunderbolt cable increases the drive's portability.

At first glance, LaCie's new Rugged Thunderbolt drive doesn't look much different from its predecessor the Rugged USB 3.0 Thunderbolt Series (reviewed in December 2012), but the company has made some improvements to this iconic drive. The two biggest differences are the addition of a captive Thunderbolt cable and a new removable cap that conceals the cable and covers the USB 3.0 port.

The cap is made of the same orange, non-slip, rubbery material that covers the Rugged's edges and gives the drive an IP 54 protection rating against dust and splashing water.

Removing the cap reveals a USB 3.0 port and the captive Thunderbolt cable (also orange in colour). You can pull the Thunderbolt cable from under the cap and then replace the cover to protect the USB 3.0 port while connected via Thunderbolt. If you don't like or need the protective cap you can easily detach it. If you lose the cap, there's a spare included in the box. Neat.

The captive cable is a good length, enough to reach Thunderbolt ports without any straining. Returning the cable to its hiding spot is easy, and

a little magnet hidden beneath the rubber holds the male end of the Thunderbolt cable in place.

The Rugged Thunderbolt is bus-powered over both USB 3.0 and Thunderbolt – having two powered connection options is great. USB 3.0 is much more common than Thunderbolt, especially on non-Apple products. With only a single Thunderbolt port, the Rugged needs to be placed at the end of the chain.

LaCie also points out the height you can accidentally drop the drive from is now two metres instead of 1.2. I dropped the drive several times from heights above two metres and the Rugged is still in working order.

A couple of the drops were on asphalt, and there isn't any visible damage to the drive. But the punishment didn't stop there. With the cap in place, I kicked dirt all over the drive and didn't find any debris in the ports after brushing it off.

The performance of the drive is primo; in our real world tests of the 500GB SSD model, the Rugged Thunderbolt was among the top performing portable drives we've tested. We found little performance difference between the USB 3.0 and

Photos from
Michael
Homnick

Thunderbolt interfaces, which isn't surprising given that the Rugged Thunderbolt is a single drive product.

Mildly interesting though, USB 3.0 was slightly faster than Thunderbolt when writing files and a bit slower than Thunderbolt when reading. Regardless, the speeds we saw using either interface were highly consistent.

Bottom line. The LaCie Rugged Thunderbolt is a fast, portable drive with a reasonable price-per-GB. If you're working in the field (or desert or war zone) the Rugged Thunderbolt is designed to handle just about any situation. I'm surprised they don't make matching MacBook covers.

– ALBERT FILICE



LACIE
www.lacie.com/au

PROS Captive Thunderbolt cable; good shock and dust protection; fast speeds

CONS Bulky case

\$269.95 (1TB); **\$399.95** (2TB); **\$399.95** (250GB, SSD); **\$669.95** (500GB, SSD)

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Other World Computing ThunderBay IV

A solid and versatile desktop storage solution

Multi-bay storage enclosures are versatile; you can reconfigure them for speed or redundancy depending on your needs. The ThunderBay IV from OWC has four drives that can be swapped easily with the aid of a screwdriver.

You can configure the disks independently or as a RAID with the help of Disk Utility. The ThunderBay IV's simple design and consistent performance make it an attractive desktop storage device.

While the drive case is black like the late 2013 Mac Pro, the perforated metal front panel is reminiscent of legacy Mac Pros. The front panel has to be unlocked with a key to access the individual drives, and the key acts as a handle for pulling off the front panel.

Status lights for power and drive activity are visible through the front panel. A large fan in the back of the drive pulls air through the perforated front panel and expels it out the rear. Below the fan are two Thunderbolt ports for daisy chaining, a Kensington lock slot and power switch.

The drives (our unit came with 3.5in Toshiba DT01ACA300 mechanisms) are mounted on caddies with four screws, so you need a screwdriver to swap out the drives. In order to use any 2.5in drives in the 3.5in brackets you need to use a NewerTech AdaptaDrive converter bracket.

I tried using a standard 2.5in to 3.5in adapter that comes with most SSDs, but the SATA connections on both the adapter and the ThunderBay IV didn't quite match up. Four of these adapters cost upwards of \$60 total, something to keep in mind if you're looking to buy the ThunderBay IV unpopulated, or want to mix and match drive sizes.

With four drives, you can take your pick of software RAID configurations: 0, 1, 10 or JBOD. As a RAID 0 setup, the ThunderBay IV performs quite nicely. It can keep up with more expensive multi-bay drives like Promise's Pegasus R6 and LaCie's 5big Thunderbolt Series.

RAID 10 gives you data redundancy with a speed boost by creating a RAID 0 from two RAID 1 sets. We tested the drive under a RAID 10, and the speeds were about twice as fast as if the disks were managed independently. Keep in mind that, much like a RAID 1 configuration, RAID 10 halves your storage capacity.

Bottom line. OWC's ThunderBay IV delivers impressive performance at a much lower price point than much of the competition. This makes it a great choice for professionals who want large storage capacities without having to forfeit speed. **BA**

— ALBERT FILICE



Photos from Michael Homnick

Write File

| | |
|--------------------|-----|
| OWC ThunderBay IV | 749 |
| CalDigit T3 | 564 |
| LaCie 5big | 784 |
| Promise Pegasus R6 | 786 |

Read File

| | |
|--------------------|-----|
| OWC ThunderBay IV | 744 |
| CalDigit T3 | 567 |
| LaCie 5big | 872 |
| Promise Pegasus R6 | 881 |

Drives tested as RAID 0.

Results are in MBps; larger numbers/longer bars are better.



OWC

www.macsales.com

PROS Two Thunderbolt ports for daisy chaining

CONS Additional adapter required for 2.5in drives

\$799.95 + shipping

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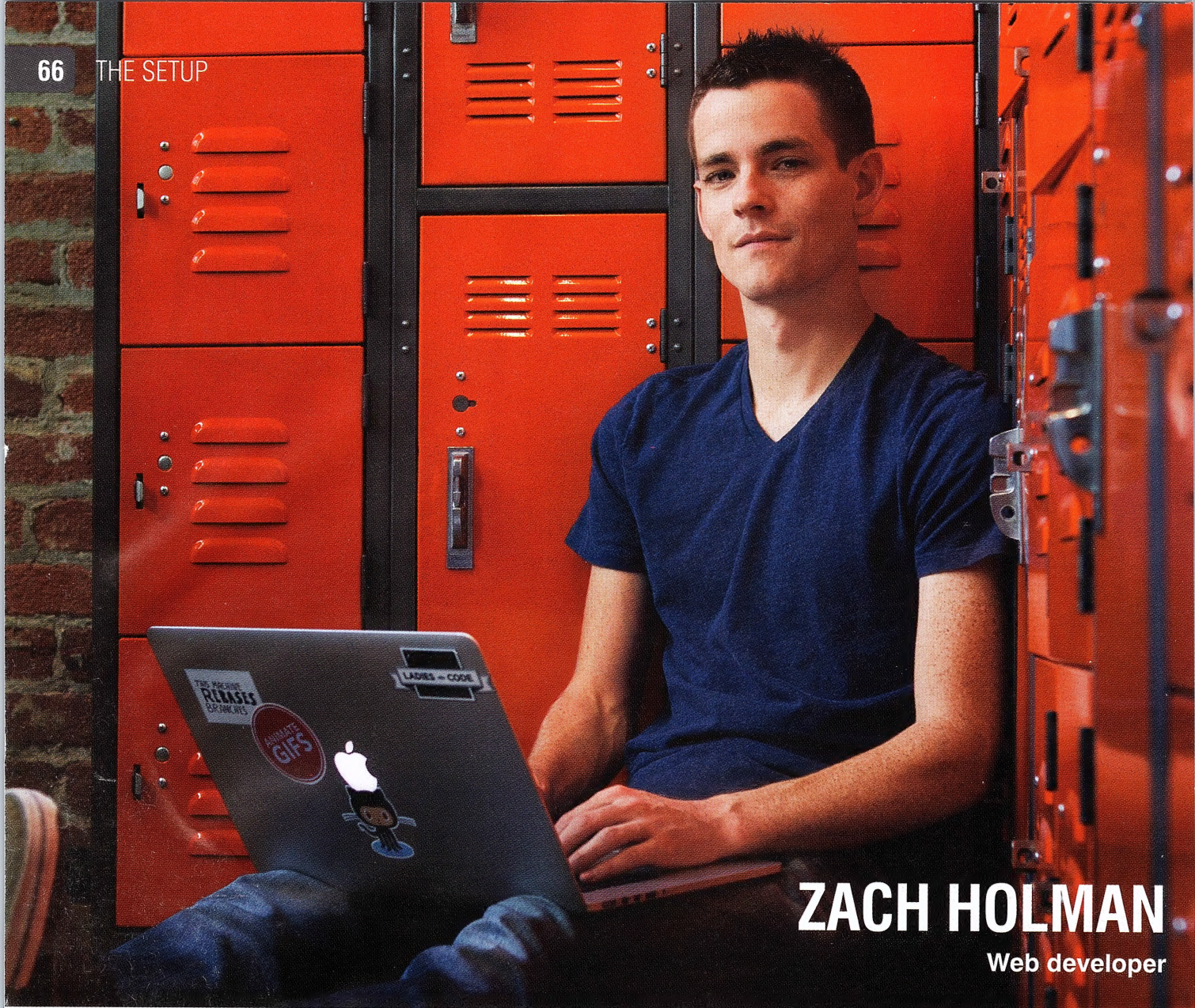
T2 Jongo Wireless Speakers

The Jongo T2 is an affordable and flexible wireless speaker with Wi-Fi and Bluetooth connectivity. Used as a stand-alone wireless speaker or team up over your home Wi-Fi with other Jongo compatible speakers to create a tightly synchronised multi-room music experience controlled from your smartphone or tablet. Multiple T2 speakers can be paired to create an authentic stereo setup, and with optional portrait stands, interchangeable colour grills and wall mounts available, Jongo is the perfect solution for great audio to fit any room.



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ZACH HOLMAN

Web developer

WHAT DO YOU DO?

I've worked at GitHub for the last four years. I also write about startups, products and emoji on my blog (zachholman.com). And I like speaking. I created speaking.io, a site to help you get better at public speaking.

WHAT HARDWARE DO YOU USE?

I'm currently on a 15in Retina MacBook Pro. I've found myself simplifying my setup over time. Previously I had an iMac, a second display and a MacBook, but I realised that it's just simpler to toss everything on one machine and one screen.

I have a black iPhone 5s and a black Retina iPad mini. I usually use the iPad only while travelling (I do travel a ton). It's got most of what I need on it now, so I'm not sure I'm going to upgrade for a year or three. I use the iPhone more than any other object I own, every single day.

I used to bring my Nikon D5100 DSLR everywhere, but switched this year to the excellent Fujifilm X100S, primarily because a lot of my photos happen casually, on the road, where the camera's smaller size is a big plus.

For live music, I play on a Native Instruments Traktor S4 DJ system at either our office or at home. I use a pair of white Pioneer HDJ-2000 headphones.

AND WHAT SOFTWARE?

I run OS X Mavericks. I tend to build things with Ruby, and I'm pretty in love with that programming language even after all these years. If it's on the web, I'm usually using Rails to build it, with the exception of some smaller apps, where I'll still drop down to Sinatra from time to time. I use Boxen, Homebrew and my dotfiles to manage my development environment. I write code in

Atom, the text editor we've been working on for six years at GitHub.

For photos, I use Aperture to manage things locally and Exposure to share them with people.

For music, I use Traktor and Maschine. For regular daily listening, I use iTunes.

WHAT IS YOUR DREAM SETUP?

I really wish I could go iPad-only. Unfortunately, as a programmer, I'm not confident that will ever be an option. I have the 15in MacBook Pro, but I'd like to drop down to a 13in Retina MacBook Air with a battery life of a billion hours. Seriously, my main goal is battery life. I don't care about speed anymore. ☒

Interview courtesy of The Setup (usesthis.com; Twitter: @usesthis). Photograph by Mark Johann.

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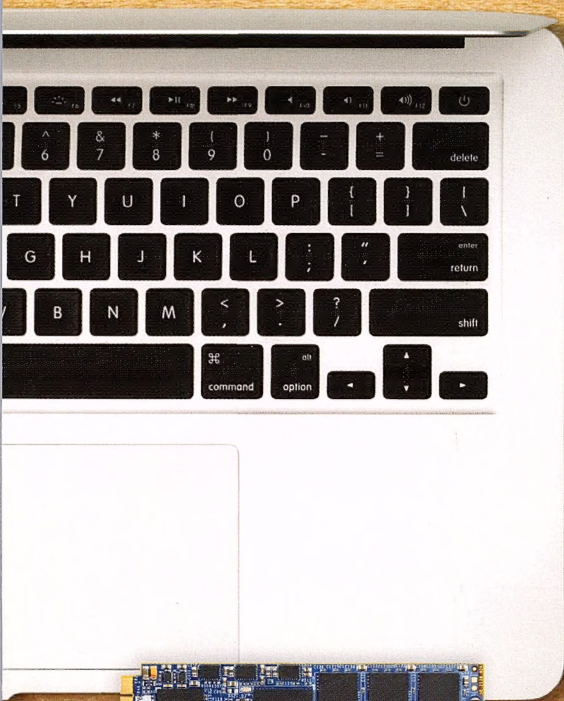
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